SONY®

PAL/SECAM

Video Equipment

1999

Issued January 1999

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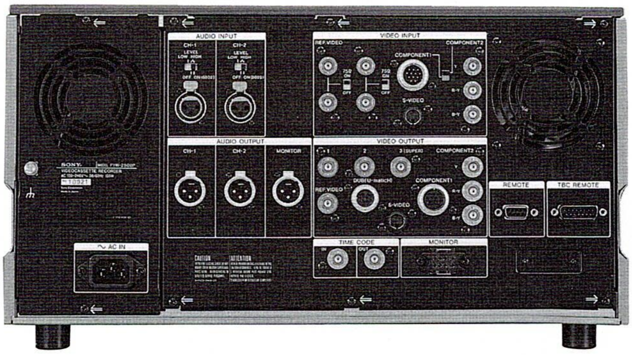
1-1 Betacam SP 2000PRO VTRs

PVW-2800P

BETACAM SP 2000PRO

Recorder/player

•Superior picture quality, inherent in the Betacam SP format •More than 100 minutes of recording/playback time using L-size Metal (for both recording and playback) or Oxide (for playback only) cassettes •High speed picture search provides recognizable colour pictures at up to 10 times normal speed in forward and reverse (24 times in monochrome) •Two longitudinal audio channels with Dolby C-type NR (Noise Reduction) system •RS-422A 9-pin interface with other RS-422A equipped Sony machines (ex. Betacam/Betacam SP VTRs, DVCAM VTRs) •Built-in comprehensive editing facilities •Dynamic Motion Control with memory provides slow-motion editing capability (when used with a player VTR equipped with DT function) •Built-in Time Base Corrector with advanced high quality digital dropout compensator •TBC remote control from an optional UVR-60P •Built-in LTC/VITC/User Bits generator and reader •Built-in character generator •Enhanced serviceability with built-in self-diagnostics •User friendly dial menu operation •Y/R-Y/B-Y component signal inputs and outputs via BNC or 12-pin Betacam DUB connectors •S-video (Y/C separate) input/output connectors •7-pin U-matic DUB output capability (option) •Compact and lightweight (5 unit high, 19-inch rack mountable, approx. 25 kg/55 lb 2 oz) •Low power consumption (150W)



Supplied accessories:	AC power cord Remote control cable RCC-5G (9-pin) PSW 4 × 16 screws for rack mounting (4) Operation manual
Optional accessories:	TBC Remote Controller UVR-60P Component colour corrector BVX-10P Control panel extention kit BKW-2010 U-matic DUB out kit BKW-2030 Control panel case BK-803 12-pin dubbing cable VDC-C5 (5 m) Remote control cable RCC-5G/10G/30G (5 m/10 m/30 m) Rack mount kit RMM-110 S-video cable SYC-2/5 (2 m/5 m)

Specifications

General

Type:	Editing recorder/player
Video recording system:	Rotary 4 head helical scan Luminance: FM recording Chrominance: FM recording (CTDM recording)
Video Signal system:	CCIR monochrome/PAL colour
Operating temperature:	5 to 40°C (41 to 104°F)
Storage temperature:	–20 to 60°C (–4 to 140°F)
Power requirements:	AC 198 to 264V, 48 to 64Hz
Power consumption:	150W
Humidity:	Less than 80% (relative humidity)
Mass:	Approx. 25 kg (55 lb 2 oz)
Dimensions:	427 (W) × 237 (H) × 549 (D) mm (16 7/8 × 9 3/8 × 21 5/8 inches) (including projecting parts)
Tape speed:	101.5 mm/s
REC/Playback time:	More than 100min with BCT-90MLA More than 35min with BCT-30MA
Fast Foward/Rewind time:	Less than 3min with BCT-90MLA
Search speed:	
SHUTTLE	19 steps, still to 24 times normal speed, forward and reverse
JOG	Frame by frame, forward and reverse

	Metal Particle Tape	Oxide Tape*1
Video performance		
Bandwidth:		
Luminance (50% modulation)	25Hz to 5.5MHz $^{+0.5}_{-4.0}$ dB	25Hz to 4.0MHz $^{+0.5}_{-6.0}$ dB
Colour difference (50% modulation)	25Hz to 2.0MHz $^{+0.5}_{-3.0}$ dB	25Hz to 1.5MHz $^{+0.5}_{-3.0}$ dB
S/N ratio:		
Luminance	More than 48dB	More than 46dB
Chrominance		
AM	More than 48dB (1.0MHz LPF)	More than 48dB (0.5MHz LPF)
PM	More than 48dB (1.0MHz LPF)	More than 48dB (0.5MHz LPF)
Differential gain	Less than 3%	—
Differential phase	Less than 3°	—
K-factor (2T pulse)	Less than 2%	Less than 3%
Y/C delay	Less than 20ns	Less than 20ns
Audio performance		
Frequency response (20dB below peak level)*2	50Hz to 15kHz $^{+1.5}_{-3.0}$ dB	50Hz to 15kHz ±3.0dB
S/N ratio (at peak level*2 weighed CCIR 468-3)	More than 68dB (Dolby NR ON)	More than 62dB (Dolby NR ON)
Distortion (at 1kHz) at operational level (4dBu)	Less than 1.0%	Less than 2.0%
Wow and flutter (DIN45507)	Less than 0.1% rms	Less than 0.1% rms

Signal inputs

REF VIDEO IN (BNC):	1.0Vp-p, 75Ω
VIDEO IN (BNC):	Composite video, 1.0Vp-p, 75Ω, sync negative
COMPONENT IN 1 (12-pin male)*3:	
Luminance	1.0Vp-p, 75Ω, sync negative
Colour difference	R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
COMPONENT IN 2 (BNC) (3)*3:	
Luminance	1.0Vp-p, 75Ω, sync negative
Colour difference	R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
S-VIDEO IN:	Y: 1.0Vp-p, 75Ω C: 0.3Vp-p (burst), 75Ω
AUDIO IN CH-1/2 (XLR 3-pin female):	
LOW	–60dBu, 3kΩ, balanced
HIGH	+4dBu, 600Ω/10kΩ selectable, balanced
TIME CODE IN (BNC):	0.5V to 18Vp-p, 10kΩ

Signal outputs

VIDEO OUT 1 (BNC):	Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 2 (BNC):	Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 3 (BNC):	Composite video, 1.0Vp-p, 75Ω, sync negative with or without character insertion
COMPONENT OUT 1 (12-pin male)*3:	
Luminance	1.0Vp-p, 75Ω, sync negative
Colour difference	R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
COMPONENT OUT 2 (BNC) (3)*3:	
Luminance	1.0Vp-p, 75Ω, sync negative
Colour difference	R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
AUDIO LINE OUT (XLR 3-pin male) CH-1/2:	+4dBu, 600Ω, balanced
AUDIO MONITOR OUT (XLR 3-pin male) CH-1/2:	+4dBu, 600Ω, balanced
U-matic DUB OUT (with an optional BKW-2030):	Y: 0.5Vp-p, 75Ω, C: 0.5Vp-p, 75Ω
S-VIDEO OUT:	Y: 1.0Vp-p, 75Ω, C: 0.3Vp-p (burst), 75Ω
TIME CODE OUT (BNC):	1.2Vp-p, 75Ω

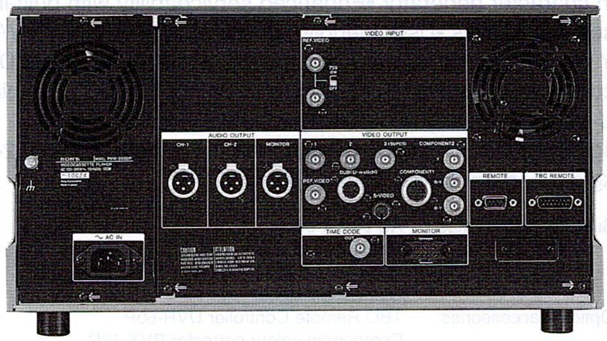
*1 The specifications of "video/audio performance oxide tape" were measured by playing back material on a standard PVW series VTR that had been recorded on a standard BVW series Betacam SP VTR.
*2 Peak level: +8dB above operational level.
*3 Video amplitude 100/0/100/0 colour bars.

PVW-2650P

BETACAM SP
2000PRO

Player with DT

•Superior picture quality, inherent in the Betacam SP format •Dynamic Tracking (DT) provides broadcast quality noiseless playback within –1 to +3 times normal speed •More than 100 minutes of playback time using the L-size cassettes with Metal or Oxide tape •High speed picture search provides recognizable colour pictures at up to 10 times normal speed in forward and reverse (24 times in monochrome) •Two longitudinal audio channels with the Dolby C-type NR (Noise Reduction) system •Direct RS-422A 9-pin interface with other RS-422A equipped Sony machines (ex. Betacam/Betacam SP VTRs, DVCAM VTRs) •Built-in Time Base Corrector with advanced high quality digital dropout compensator •TBC remote control from an optional UVR-60P •Built-in LTC/VITC/User Bits reader •Built-in character generator •Enhanced serviceability with built-in self-diagnostics •User friendly dial menu operation •Y/R-Y/B-Y component signal outputs via BNC or 12-pin Betacam DUB connectors •S-video (Y/C separate) output connector •7-pin U-matic DUB output capability (option) •Compact and lightweight (5 unit high, 19-inch rack mountable, approx. 25 kg/55 lb 2 oz) •Low power consumption (130W)



Supplied accessories:	AC power cord Remote control cable RCC-5G (9-pin) PSW 4 × 16 screws for rack mounting (4) Operation manual
Optional accessories:	TBC Remote Controller UVR-60P Component colour corrector BVX-10P Control panel extension kit BKW-2010 U-matic DUB out kit BKW-2030 Control panel case BK-803 12-pin dubbing cable VDC-C5 (5 m) Remote control cable RCC-5G/10G/30G (5 m/10 m/30 m) Rack mount kit RMM-110 S-Video cable SYC-2/5 (2 m/5 m)

Specifications

General

Type:	Editing player with DT
Video recording system:	Rotary 4 head helical scan Luminance: FM recording Chrominance: FM recording (CTDM recording)
Video signal system:	CCIR monochrome/PAL colour
Operating temperature:	5 to 40°C (41 to 104°F)
Storage temperature:	–20 to 60°C (–4 to 104°F)
Power requirements:	AC 198 to 264V, 48 to 64Hz
Power consumption:	130W
Humidity:	Less than 80% (relative humidity)
Mass:	Approx. 25 kg (55 lb 2 oz)
Dimensions:	427 (W) × 237 (H) × 549 (D) mm ($16\frac{7}{8} \times 9\frac{3}{8} \times 21\frac{5}{8}$ inches) (including projecting parts)
Tape speed:	101.5 mm/s
Playback time:	More than 100min with BCT-90MLA More than 35min with BCT-30MA
Fast Foward/Rewind time:	Less than 3min with BCT-90MLA
Search speed:	
SHUTTLE	19 steps, still to 24 times normal speed, forward and reverse
JOG	Frame by frame, forward and reverse
Dynamic Tracking range:	–1 to +3 times normal speed

	Metal Particle Tape	Oxide Tape*1
Video performance		
Bandwidth:		
Luminance (50% modulation)	25Hz to 5.5MHz $^{+0.5}_{-4.0}$ dB	25Hz to 4.0MHz $^{+0.5}_{-6.0}$ dB
Colour difference (50% modulation)	25Hz to 2.0MHz $^{+0.5}_{-3.0}$ dB	25Hz to 1.5MHz $^{+0.5}_{-3.0}$ dB
S/N ratio:		
Luminance	More than 48dB	More than 46dB
Chrominance		
AM	More than 48dB (1.0MHz LPF)	More than 48dB (0.5MHz LPF)
PM	More than 48dB (1.0MHz LPF)	More than 48dB (0.5MHz LPF)
Differential gain	Less than 3%	—
Differential phase	Less than 3°	—
K-factor (2T pulse)	Less than 2%	Less than 3%
Y/C delay	Less than 20ns	Less than 20ns
Audio performance		
Frequency response (20dB below peak level)*2	50Hz to 15kHz $^{+1.5}_{-3.0}$ dB	50Hz to 15kHz ±3.0dB
S/N ratio (at peak level*2 weighed CCIR 468-3)	More than 68dB (Dolby NR ON)	More than 62dB (Dolby NR ON)
Distortion (at 1kHz) at operational level (4dBu)	Less than 1.0%	Less than 2.0%
Wow and flutter (DIN45507)	Less than 0.1% rms	Less than 0.1% rms

Signal inputs

REF VIDEO IN (BNC): 1.0Vp-p, 75Ω

Signal outputs

VIDEO OUT 1 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 2 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 3 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative with or without character insertion
COMPONENT OUT 1 (12-pin male)*3:
  Luminance: 1.0Vp-p, 75Ω, sync negative
  Colour difference: R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
COMPONENT OUT 2 (BNC) (3)*3:
  Luminance: 1.0Vp-p, 75Ω, sync negative
  Colour difference: R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
AUDIO LINE OUT (XLR 3-pin male) CH-1/2: +4dBu, 600Ω, balanced
AUDIO MONITOR OUT (XLR 3-pin male) CH-1/2: +4dBu, 600Ω, balanced
U-matic DUB OUT (with an optional BKW-2030): Y: 0.5Vp-p, 75Ω, C: 0.5Vp-p, 75Ω
S-VIDEO OUT: Y: 1.0Vp-p, 75Ω, C: 0.3Vp-p (burst), 75Ω
TIME CODE OUT (BNC): 1.2Vp-p, 75Ω

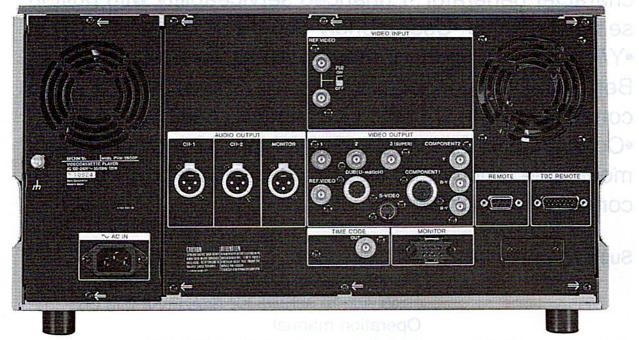
*1 The specifications of "video/audio performance oxide tape" were measured by playing back material on a standard PVW series VTR that had been recorded on a standard BVW series Betacam SP VTR.
*2 Peak level :+8dB above operational level.
*3 Video amplitude 100/0/100/0 colour bars.

PVW-2600P

Player

BETACAM SP
2000PRO

•Superior picture quality, inherent in the Betacam SP format •More than 100 minutes of playback time using the L-size Metal or Oxide cassettes •High speed picture search provides recognizable colour pictures at up to 10 times normal speed in forward and reverse (24 times in monochrome) •Two longitudinal audio channels with the Dolby C-type NR (Noise Reduction) system •RS-422A 9-pin interface with other RS-422A equipped Sony machines (ex. Betacam/Betacam SP VTRs, DVCAM VTRs) •Built-in Time Base Corrector with advanced high quality digital dropout compensator •TBC remote control from an optional UVR-60P •Built-in LTC/VITC/User Bits reader •Built-in character generator •Enhanced serviceability with built-in self-diagnostics •User friendly dial menu operation •Y/R-Y/B-Y component signal outputs via BNC or 12-pin Betacam DUB connectors •S-video (Y/C separate) output connector •7-pin U-matic DUB output capability (option) •Compact and lightweight (5 unit high, 19-inch rack mountable, approx. 24.5 kg/54 lb) •Low power consumption (120W)



Supplied accessories: AC power cord
Remote control cable RCC-5G (9-pin)
PSW 4 × 16 screws for rack mounting (4)
Operation manual

Optional accessories: TBC Remote Controller UVR-60P
Component colour corrector BVX-10P
Control panel extention kit BKW-2010
U-matic DUB out kit BKW-2030
Control panel case BK-803
12-pin dubbing cable VDC-C5 (5 m)
Remote control cable RCC-5G/10G/30G (5 m/10 m/30 m)
Rack mount kit RMM-110
S-video cable SYC-2/5 (2 m/5 m)

Specifications

General

Type: Editing player
Video recording system: Rotary 4 head helical scan
Luminance: FM recording
Chrominance: FM recording (CTDM recording)
Video Signal system: CCIR monochrome/PAL colour
Operating temperature: 5 to 40°C (41 to 104°F)
Storage temperature: –20 to 60°C (–4 to 140°F)
Power requirements: AC 198 to 264V, 48 to 64Hz
Power consumption: 120W
Humidity: Less than 80% (relative humidity)
Mass: Approx. 24.5 kg (54 lb)
Dimensions: 427 (W) × 237 (H) × 549 (D) mm ($16^7/_8 \times 9^3/_8 \times 21^5/_8$ inches) (including projecting parts)
Tape speed: 101.5 mm/s
Playback time: More than 100min with BCT-90MLA
More than 35min with BCT-30MA
Fast Foward/Rewind time: Less than 3min with BCT-90MLA
Search speed:
SHUTTLE: 19 steps, still to 24 times normal speed, forward and reverse
JOG: Frame by frame, forward and reverse

	Metal Particle Tape	Oxide Tape*1
Video performance		
Bandwidth:		
Luminance (50% modulation)	25Hz to 5.5MHz $^{+0.5}_{-4.0}$ dB	25Hz to 4.0MHz $^{+0.5}_{-6.0}$ dB
Colour difference (50% modulation)	25Hz to 2.0MHz $^{+0.5}_{-3.0}$ dB	25Hz to 1.5MHz $^{+0.5}_{-3.0}$ dB
S/N ratio:		
Luminance	More than 48dB	More than 46dB
Chrominance		
AM	More than 48dB (1.0MHz LPF)	More than 48dB (0.5MHz LPF)
PM	More than 48dB (1.0MHz LPF)	More than 48dB (0.5MHz LPF)
Differential gain	Less than 3%	—
Differential phase	Less than 3°	—
K-factor (2T pulse)	Less than 2%	Less than 3%
Y/C delay	Less than 20ns	Less than 20ns
Audio performance		
Frequency response (20dB below peak level)*2	50Hz to 15kHz $^{+1.5}_{-3.0}$ dB	50Hz to 15kHz ±3.0dB
S/N ratio (at peak level*2 weighed CCIR 468-3)	More than 68dB (Dolby NR ON)	More than 62dB (Dolby NR ON)
Distortion (at 1kHz) at operational level (4dBu)	Less than 1.0%	Less than 2.0%
Wow and flutter (DIN45507)	Less than 0.1% rms	Less than 0.1% rms

Signal inputs

REF VIDEO IN (BNC): 1.0Vp-p, 75Ω

Signal outputs

VIDEO OUT 1 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 2 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 3 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative with or without character insertion
COMPONENT OUT 1 (12-pin male)*3:
Luminance: 1.0Vp-p, 75Ω, sync negative
Colour difference: R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
COMPONENT OUT 2 (BNC) (3)*3:
Luminance: 1.0Vp-p, 75Ω, sync negative
Colour difference: R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
AUDIO LINE OUT (XLR 3-pin male) CH-1/2: +4dBu, 600Ω, balanced
AUDIO MONITOR OUT (XLR 3-pin male) CH-1/2: +4dBu, 600Ω, balanced
U-matic DUB OUT (with an optional BKW-2030): Y: 0.5Vp-p, 75Ω, C: 0.5Vp-p, 75Ω
S-VIDEO OUT: Y: 1.0Vp-p, 75Ω, C: 0.3Vp-p (burst), 75Ω
TIME CODE OUT (BNC): 1.2Vp-p, 75Ω

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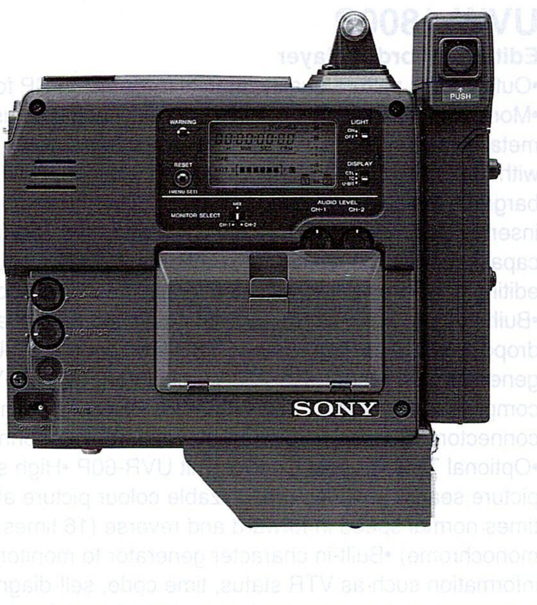
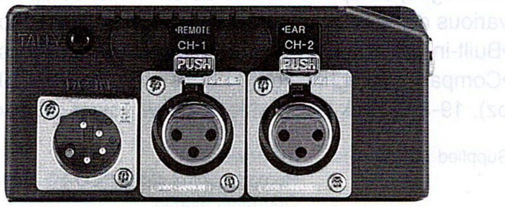
*1 The specifications of "video/audio performance oxide tape" were measured by playing back material on a standard PVW series VTR that had been recorded on a standard BVW series Betacam SP VTR.
*2 Peak level: +8dB above operational level.
*3 Video amplitude 100/0/100/0 colour bars.

PVV-3P

Dockable recorder unit

•Superior picture quality, inherit in the Betacam SP format •Compact and light-weight design •Low power consumption •Directly connected with DXC-D30P/D30WSP/637P/327BP via the Pro 50-pin connector •Supplied with 20-pin connector for full colour playback in field through the optional VA-300P and VA-500P •More than 35 minutes of recording time using the S-size cassette (Metal particle tape only) •Two longitudinal audio channels with the Dolby C-type Noise Reduction system •Luminance or CTDM viewfinder •Full range of control provided (Fast forward/ Rewind/Play/Stop/Eject) •Record review function •Built-in LTC/VITC/User Bits generator and LTC reader with exteranl time code lock capability •Frame accurate back space editing without time code discontinuity at the transition points •8-digit LCD display •Real time and date recording function •Built-in loud speaker •Digital hours meter •Built-in microphone external power supply (+48V, CH-1/2) •Built-in self diagnostics with character display on TV monitor •Enhanced serviceability





Supplied accessories:	Shoulder belt Screws M4 × 12 (2) M4 × 6 (2) Operation manual Handle Lithium battery(CR2025)
Optional accessories:	NiCd Rechargeable Battery NP-1B, BA-90A Battery case (for BP-90A) DC-500 Battery case (for NP-1B) DC-520 Battery charger BC-1WDCE Battery charger BC-410CE Camera adaptor CMA-8ACE Camera adaptor (for BVP series) CA-514 Power cable (for CMA-8ACE) CCQX-3 Playback adaptor VA-300P

Specifications

General

Type:	Dockable recorder unit
Operating temperature:	0 to 40˚C (32 to 104˚F)
Storage temperature:	-20 to 60˚C (-4 to 140˚F)
Power requirements:	DC 12V $^{+5.0}_{-1.0}$ V
Power consumption:	10W
Humidity:	Less than 85% (relative humidity)
Mass:	Approx. 2.8 kg (6 lb 2 oz)
Tape speed:	101.5 mm/s
REC/Playback time:	More than 35min with BCT-30MA/UVWT-30MA
Fast Forward time:	Less than 7.5min with BCT-30MA/UVWT-30MA
Rewind time:	Less than 5.5min with BCT-30MA/UVWT-30MA
Continuous operating time:	Approx. 60min with NP-1B (PVV-3P and DXC-637P)

Video performance (Metal Particle Tape only)*1

Bandwidth:	Luminance(50% modulation): 25Hz to 5.5MHz $^{+0.5}_{-4.0}$ dB Colour difference (50% modulation): 25Hz to 2.0MHz $^{+0.5}_{-3.0}$ dB
S/N ratio:	Luminance(Component IN/OUT): More than 48dB Colour difference (AM/PM): More than 48dB
K-pulse(2T):	Less than 2%
Y/C delay:	Less than 20ns

Audio performance (Metal Particle Tape only)*1

Frequency response: 50Hz to 15kHz $^{+1.5}_{-3.0}$ dB

S/N ratio (at 3% distortion level):
More than 62dB (CCIR 468-3, at peak level*3)

Distortion T.H.D. (at 1kHz reference level):
Less than 1.5%

Wow and flutter (DIN weighted):
Less than 0.15%rms

Signal inputs/outputs

VIDEO (from the camera head, Pro 50-pin)*2:
Luminance:1.0Vp-p, 1kΩ
Colour difference:
B-Y/R-Y; 0.7Vp-p, 1kΩ

GEN LOCK VIDEO IN (BNC):
1.0Vp-p, 75Ω

AUDIO IN CH-1/2 (XLR 3-pin female):
-60dBu/+4dBu selectable, high impedance, balanced

TIME CODE IN (BNC): 0.5V to 18Vp-p, 10kΩ

ENCODED VIDEO OUT (Camera Video Out, BNC):
1.0Vp-p, 75Ω

TIME CODE OUT(BNC):
1.0Vp-p, 75Ω

Others

EARPHONE OUT:	Mini jack
PLAYBACK ADAPTOR:	20-pin
REMOTE:	Stereo Mini Jack

*1 The specifications of "video/audio performace" were measured by playing back material on a standard PVW series that had been recorded on a PVV-3P.

*2 Video amplitude 100/0/100/0 colour bars

UVW-1800P

Editing recorder/player

•Outstanding picture quality, thanks to Betacam SP format •More than 100 minutes of recording/playback time using L-size metal Betacam SP cassettes •Two longitudinal audio channel with the Dolby C-type Noise Reduction system shown in unique bargraph indicators •Frame accurate editing: assemble and insert (video, audio CH-1, audio CH-2 and time code) editing capability when controlled from optional RS-422A equipped editing controller unit •Dedicated longitudinal time code track •Built-in Time Base Corrector with advanced high quality digital dropout compensation •Built-in EBU time code (LTC/User-bit) generator and reader •RS-422A 9-pin interface •Y/R-Y/B-Y component signal input and output via BNC or 12-pin DUB connectors •S-video (Y/C separate) input/output connectors •Optional TBC Remote Control Unit UVR-60P •High speed picture search provides recognizable colour picture at up to 5 times normal speed in forward and reverse (16 times in monochrome) •Built-in character generator to monitor display information such as VTR status, time code, self-diagnostic messages, setup menu, and so on •Initial setup menu to preset various detailed operational parameters •Digital hours meter •Built-in self diagnostics with detailed warning messages •Compact and lightweight (4 units high, approx. 19 kg/41 lb 14 oz), 19-inch rack mountable and low power consumption (85W)

Supplied accessories:	AC power cord Remote control cable RCC-5G (9-pin) Operation manual
Optional accessories:	TBC Remote controller UVR-60P Component colour corrector BVX-10P Remote control cable RCC-5G/10G/30G (5 m/10 m/30 m) 12-pin dubbing cable VDC-C5 (5 m) S-video cable SYC-2/5 (2 m/5 m) Remote control unit DSRM-10 Rack mount unit RMM-130

Specifications

General

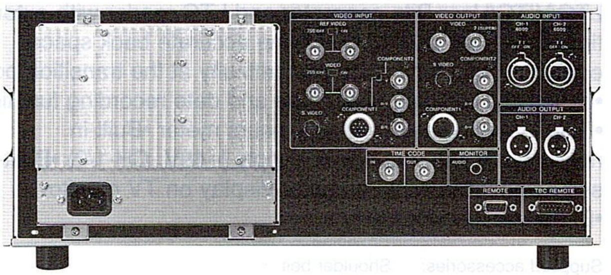
Type:	Editing recorder/player
Video recording system:	Rotary 4 head helical scan Luminance: FM recording Chrominance: FM recording (CTDM recording)
Video signal system:	CCIR monochrome/PAL colour
Power requirements:	AC 198 to 264V, 48 to 64Hz
Power consumption:	85W
Operating temperature:	5 to 40°C (41 to 104°F)
Storage temperature:	–20 to 60°C (–4 to 140°F)
Humidity:	Less than 80% (relative humidity)
Dimensions:	427 (W) × 193 (H) × 474 (D) mm ($16\frac{7}{8} \times 7\frac{5}{8} \times 18\frac{3}{4}$ inches)
Mass:	Approx. 19 kg (41 lb 14 oz)
Tape speed:	101.5 mm/s
Recording/playback time:	More than 100min with UVWT-90MLA More than 35min with UVWT-30MA
Fast forward time:	Less than 3min with UVWT-90MLA
Rewind time:	Less than 3min with UVWT-90MLA
Search speed (with optional DSRM-10)*1:	Shuttle: 15 steps, still to 16 times normal speed, forward and reverse Jog: Frame by frame to ×2, forward and reverse

Video performance (Metal particle tape)

Bandwidth (50% modulation):	Luminance: 25Hz to 5.0MHz $^{+1.0}_{-4.0}$ dB Colour difference: 25Hz to 1.5MHz $^{+1.0}_{-4.0}$ dB
S/N ratio:	Luminance (Component in/out): More than 46dB Chrominance (1.0MHz LPF): AM; More than 48dB PM; More than 48dB
K-factor (2T pulse):	Less than 3%
Y/C delay:	Less than 30ns

Audio performance (Metal particle tape)

Frequency responce:	50Hz to 15kHz $^{+2.0}_{-3.0}$ dB (20dB below peak level)*2
S/N ratio:	More than 66dB (at peak level weighed CCIR468-3)*2
Distortion:	Less than 1.5% (at 1kHz/at operational level 4dBu)
Wow and flutter:	Less than 0.15% rms (DIN 45507)



Signal inputs

REF VIDEO IN:	BNC, 1.0Vp-p, 75Ω
VIDEO IN:	BNC, Composite video, 1.0Vp-p, 75Ω, sync negative
COMPONENT IN 1:	12-pin male*3, Luminance: 1.0Vp-p, 75Ω, sync negative Colour difference: R-Y; 0.7Vp-p, 75Ω B-Y; 0.7Vp-p, 75Ω
COMPONENT IN 2:	BNC (3)*3, Luminance: 1.0Vp-p, 75Ω, sync negative Colour difference: R-Y; 0.7Vp-p, 75Ω B-Y; 0.7Vp-p, 75Ω
S-VIDEO IN:	Mini DIN 4-pin, Y: 1.0Vp-p, 75Ω C: 0.3Vp-p (burst), 75Ω
AUDIO IN CH-1/2:	XLR 3-pin female, 4dBu, 600Ω/10kΩ selectable balanced
TIME CODE IN:	BNC, 0.5V to 18Vp-p, 600Ω

Signal outputs

VIDEO OUT 1:	BNC, Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 2:	BNC, Composite video, 1.0Vp-p, 75Ω, sync negative, with or without character insertion
COMPONENT OUT 1:	12-pin female*3, Luminance: 1.0Vp-p, 75Ω, sync negative Colour difference: R-Y; 0.7Vp-p, 75Ω B-Y; 0.7Vp-p, 75Ω
COMPONENT OUT 2:	BNC (3)*3, Luminance: 1.0Vp-p, 75Ω, sync negative Colour difference: R-Y; 0.7Vp-p, 75Ω B-Y; 0.7Vp-p, 75Ω
AUDIO LINE OUT CH-1/2:	XLR 3-pin, male, 4dBu, 600Ω, balanced
AUDIO MONITOR OUT CH-1/2:	Phono, –6dBu
S-VIDEO OUT:	Mini DIN 4-pin, Y: 1.0Vp-p, 75Ω C: 0.3Vp-p (burst), 75Ω
TIME CODE OUT:	BNC, 2.2Vp-p, 600Ω

Others

REMOTE:	RS-422A 9-pin multi connector
TBC REMOTE:	D-sub 15-pin
CONTROL-S (SIRCS):	Stereo mini jack
HEADPHONES:	JM-60 headphone stereo jack

Processor adjustment range (with optional UVR-60P)

Video level:	±3dB
Chroma level:	±3dB
Black level:	0 to 100mV
System SC phase:	360°p-p*4
System sync phase:	–1 to 3μs*5
Y/C delay:	±100ns

*1 Without DSRM-10 attached, search speed is 16 times forward and reverse with "REW/FFWD" button continuously depressed.

*2 Peak level: +8dB above operational level

*3 Video amplitude 100/0/100/0 colour bars

*4 With or without UVR-60P attached

*5 Without UVR-60P attached: ±300ns

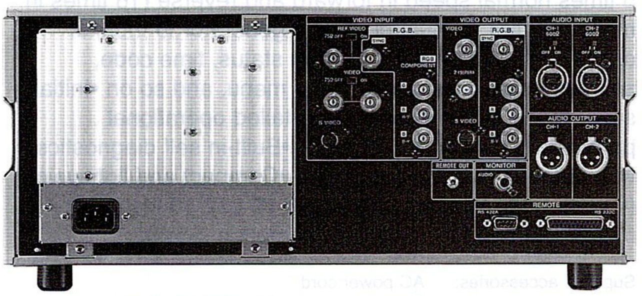
UVW-1700GP

CG frame recorder

* Production of this product has been discontinued. For details, please consult your nearest Sony office.

•Especially designed for CG application •Outstanding picture quality, thanks to Betacam SP format •More than 100 minutes of recording/playback time using L-size metal Betacam SP cassettes •Two longitudinal audio channel with the Dolby C-type Noise Reduction system shown in unique bargraph indicators •Dedicated longitudinal time code track •Built-in Time Base Stabilizer with advanced high quality digital dropout compensation •Built-in EBU time code (LTC/User-bit) generator and reader •RS-232C D-sub 25-pin interface /RS-422A 9-pin interface for external computer operation (switchable) •Frame accurate insert editing (video only) capability when controlled from optional RS-422A or RS-232C equipped editing controller •Y/R-Y/B-Y component signal inputs and outputs via BNC connectors are switchable to RGB input/output connector •SYNC IN/OUT connectors •S-video (Y/C separate) input/output connectors • Trigger remote out for video printers (stereo mini jack) •High speed picture search provides recognizable colour picture at up to 5 times normal speed in forward and reverse (16 times in monochrome) •Built-in character generator to monitor display information such as VTR status, time code, self-diagnostic messages, setup menu, and so on •Initial setup menu to preset various detailed operational parameters •Digital hours meter •Built-in self diagnostics with detailed warning messages •Compact and lightweight (4 units high, approx. 19 kg/41 lb 14 oz), 19-inch rack mountable and low power consumption (85W)

SONY
BETACAM SP
00:00:00:00



Supplied accessories:	AC power cord Operation manual RS-232 Protocol manual
Optional accessories:	Component colour corrector BVX-10P Remote control cable RCC-5G/10G/30G (5 m/10 m/30 m) S-video cable SYC-2/5 (2 m/5 m) Remote control unit SVRM-100A Rack mount unit RMM-130

Specifications

General

Type:	Editing reorder/player
Video recording system:	Rotary 4 head helical scan Luminance: FM recording Chrominance: FM recording (CTDM recording)
Video signal system:	CCIR monochrome/PAL colour
Power requirements:	AC 198 to 264V, 48 to 64Hz
Power consumption:	85W
Operating temperature:	5 to 40˚C (41 to 104˚F)
Storage temperature:	–20 to 60˚C (–4 to 140˚F)
Humidity:	Less than 80% (relative humidity)
Dimensions:	427 (W) × 193 (H) × 474 (D) mm (16 7/8 × 7 5/8 × 18 3/4 inches)
Mass:	Approx. 19 kg (41 lb 14 oz)
Tape speed:	101.5 mm/s
Recording/playback time:	More than 100min with UVWT-90MLA More than 35min with UVWT-30MA
Fast forward time:	Less than 3min with UVWT-90MLA
Rewind time:	Less than 3min with UVWT-90MLA
Search speed (with optional SVRM-100A)*1	Shuttle: 15 steps, still to 16 times normal speed, forward and reverse Jog: Frame by frame to ×2, forward and reverse

Video performance (Metal particle tape)

Bandwidth (50% modulation):	Luminance: 25Hz to 5.0MHz $^{+1.0}_{-4.0}$dB Colour difference: 25Hz to 1.5MHz $^{+1.0}_{-4.0d}$B
S/N ratio:	Luminance (Component in/out): More than 46dB Chrominance (1.0MHz LPF): AM; More than 48dB PM; More than 48dB
K-factor (2T pulse):	Less than 3%
Y/C delay:	Less than +30ns

Audio performance (Metal particle tape)

Frequency response:	50Hz to 15kHz $^{+2.0}_{-3.0}$ dB (20dB below peak level)*2
S/N ratio:	More than 66dB (at peak level massed CCIR468-3)*2
Distortion:	Less than 1.5% (at 1kHz/at operational level 4dBu)
Wow and flutter:	Less than 0.15% rms (DIN 45507)

Signal inputs

REF VIDEO:	BNC (2), Composite video: 1.0Vp-p, 75Ω, sync negative Composite sync: 0.2 to 5.0Vp-p, 75Ω, sync negative (with component I/O)
VIDEO IN:	BNC, Composite video, 1.0Vp-p, 75Ω, sync negative
RGB/COMPONENT IN:	BNC (3)*3, Y/Sync on G: 1.0Vp-p, 75Ω, sync negative G: 0.7Vp-p, 75Ω R-Y/R: 0.7Vp-p, 75Ω B-Y/B: 0.7Vp-p, 75Ω
S-VIDEO IN:	Mini DIN 4-pin, Y: 1.0Vp-p, 75Ω C: 0.3Vp-p (burst), 75Ω
AUDIO IN CH-1/2:	XLR 3-pin female, 4dBu, 600Ω/10kΩ selectable, balanced

Signal outputs

VIDEO OUT 1:	BNC, Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 2:	BNC, Composite video, 1.0Vp-p, 75Ω, sync negative, with or without character insertion
RGB/COMPONENT OUT:	BNC (3)*3, Y/Sync on G: 1.0Vp-p, 75Ω, sync negative G: 0.7Vp-p, 75Ω R-Y/R: 0.7Vp-p, 75Ω B-Y/B: 0.7Vp-p, 75Ω
AUDIO LINE OUT CH-1/2:	XLR 3-pin, male 4dBu, 600Ω, balanced
AUDIO MONITOR OUT CH-1/2:	Phono, –6dBu
S-VIDEO OUT:	Mini DIN 4-pin, Y: 1.0Vp-p, 75Ω C: 0.3Vp-p (burst), 75Ω
RGB SYNC OUT:	2Vp-p, 75Ω, negative (at RGB composite sync)

Others

REMOTE:	RS-232C 25-pin multi connector RS-422A 9-pin multi connector
REMOTE OUT:	Stereo mini jack (for trigger to video printer)
CONTROL-S (SIRCS):	Stereo mini jack
HEADPHONES:	JM-60 headphone stereo jack

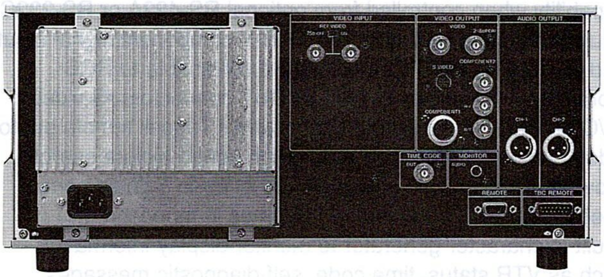
*1 Without SVRM-100A attached, search speed is 16 times forward and reverse with "REW/FFWD" button continuously depressed.
*2 Peak level: +8dB above operational level
*3 Video amplitude 100/0/100/0 colour bars.

UVW-1600P

Editing player

•Outstanding picture quality, thanks to Betacam SP format •More than 100 minutes of playback time using L-size metal Betacam SP cassettes •Two longitudinal audio channel with the Dolby C-type Noise Reduction system shown in unique bargraph indicators •Dedicated longitudinal time code track •Built-in Time Base Corrector with advanced high quality digital dropout compensation •Built-in EBU time code (LTC/User-bit) reader •RS-422A 9-pin interface •Y/R-Y/B-Y component signal output via BNC or 12-pin DUB connector •S-video (Y/C separate) output connector •Optional TBC Remote Control Unit UVR-60P •High speed picture search provides recognizable colour picture at up to 5 times normal speed in forward and reverse (16 times in monochrome) •Built-in character generator to monitor display information such as VTR status, time code, self-diagnostic messages, setup menu, and so on •Initial setup menu to preset various detailed operational parameters •Digital hours meter •Built-in self diagnostics with detailed warning messages •Compact and lightweight (4 units high, approx. 18 kg/39 lb 10 oz), 19-inch rack mountable and low power consumption (65W)

SONY
BETACAM SP
VIDEOCASSETTE PLAYER UVW-1600P



Supplied accessories:	AC power cord Remote control cable RCC-5G (9-pin) Operation manual
Optional accessories:	TBC Remote controller UVR-60P Component colour corrector BVX-10P Remote control cable RCC-5G/10G/30G (5 m/10 m/30 m) 12-pin dubbing cable VDC-C5 (5 m) S-video cable SYC-2/5 (2 m/5 m) Remote control unit DSRM-10 Rack mount unit RMM-130

Specifications

General

Type:	Editing player
Video recording system:	Rotary 4 head helical scan Luminance: FM recording Chrominance: FM recording (CTDM recording)
Video signal system:	CCIR monochrome/PAL colour
Power requirements:	AC 198 to 264V, 48 to 64Hz
Power consumption:	65W
Operating temperature:	5 to 40°C (41 to 104°F)
Storage temperature:	–20 to 60°C (–4 to 140°F)
Humidity:	Less than 80% (relative humidity)
Dimensions:	427 (W) × 193 (H) × 474 (D) mm ($16\frac{7}{8} \times 7\frac{5}{8} \times 18\frac{3}{4}$ inches)
Mass:	Approx. 18 kg (39 lb 10 oz)
Tape speed:	101.5 mm/s
Playback time:	More than 100min with UVWT-90MLA More than 35min with UVWT-30MA
Fast forward time:	Less than 3min with UVWT-90MLA
Rewind time:	Less than 3min with UVWT-90MLA
Search speed (with optional DSRM-10)[1]:	Shuttle: 15 steps, still to 16 times normal speed, forward and reverse Jog: Frame by frame to ×2, forward and reverse

Video performance (Metal particle tape)

Bandwidth (50% modulation):	Luminance: 25Hz to 5.0MHz $^{+1.0}_{-4.0}$ dB Colour difference: 25Hz to 1.5MHz $^{+1.0}_{-4.0}$ dB
S/N ratio:	Luminance (Component out): More than 46dB Chrominance (1.0MHz LPF): AM; More than 48dB PM; More than 48dB
K-factor (2T pulse):	Less than 3%
Y/C delay:	Less than 30ns

Audio performance (Metal particle tape)

Frequency responce:	50Hz to 15kHz $^{+2.0}_{-3.0}$dB (20dB below peak level)[2]
S/N ratio:	More than 66dB (at peak level weighed CCIR468-3)[2]
Distortion:	Less than 1.5% (at 1kHz/at operational level 4dBu)
Wow and flutter:	Less than 0.15% rms (DIN45507)

Signal inputs

REF VIDEO IN:	BNC, 1.0Vp-p, 75Ω

Signal outputs

VIDEO OUT 1:	BNC, Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 2:	BNC, Composite video, 1.0Vp-p, 75Ω, sync negative with or without character insertion
COMPONENT OUT 1:	12-pin female[3], Luminance: 1.0Vp-p, 75Ω, sync negative Colour difference: R-Y; 0.7Vp-p, 75Ω B-Y; 0.7Vp-p, 75Ω
COMPONENT OUT 2:	BNC (3)[3], Luminance: 1.0Vp-p, 75Ω, sync negative Colour difference: R-Y; 0.7Vp-p, 75Ω B-Y; 0.7Vp-p, 75Ω
AUDIO LINE OUT CH-1/2:	XLR 3-pin, male, 4dBu, 600Ω, balanced
AUDIO MONITOR OUT CH-1/2:	Phono, –6dBu
S-VIDEO OUT:	Mini DIN 4-pin, Y: 1.0Vp-p, 75Ω C: 0.3Vp-p (burst), 75Ω
TIME CODE OUT:	BNC, 2.2Vp-p, 600Ω

Others

REMOTE:	RS-422A 9-pin multi connector
TBC REMOTE:	D-sub 15-pin
CONTROL-S (SIRCS):	Stereo mini jack
HEADPHONES:	JM-60 headphone stereo jack

Processor adjustment range (with optional UVR-60P)

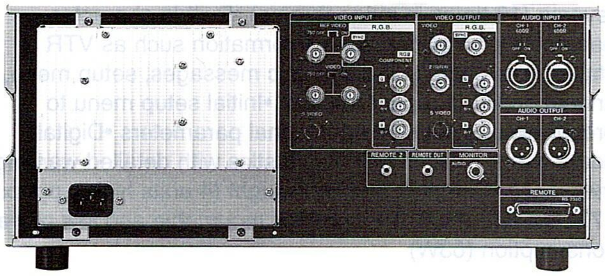
Video level:	±3dB
Chroma level:	±3dB
Black level:	0 to 100mV
System SC phase:	360°p-p[4]
System sync phase:	–1 to 3µs[5]
Y/C delay:	±100ns

[1] Without DSRM-10 attached, search speed is 16 times forward and reverse with "REW/FFWD" button continuously depressed.
[2] Peak level: + 8dB above operational level
[3] Video amplitude 100/0/100/0 colour bars
[4] With or without UVR-60P attached
[5] Without UVR-60P attached: ±300ns

UVW-1400AP

Recorder/player

•Outstanding picture quality, thanks to Betacam SP format •More than 100 minutes of recording/playback time using L-size metal Betacam SP cassettes •Two longitudinal audio channel with the Dolby C-type Noise Reduction system shown in unique bargraph indicators •Dedicated longitudinal time code track •Built-in Time Base Stabilizer with advanced high quality digital dropout compensation •Built-in EBU time code (LTC/User-bit) generator and reader •25-pin remote control interface complied with RS-232C interface for external computer operation •Y/R-Y/B-Y component signal inputs and outputs via BNC connectors are switchable to RGB input/output connector •S-video (Y/C separate) input/output connectors •Foot switch control capability •Trigger remote out for video printers (stereo mini jack) •Back space editing for smooth transitions between scenes with optional remote controller •High speed picture search provides recognizable colour picture at up to 5 times normal speed in forward and reverse (16 times in monochrome) •Built-in character generator to monitor display information such as VTR status, time code, self-diagnostic messages, setup menu, and so on •Auto repeat function •Initial setup menu to preset various detailed operational parameters •Digital hours meter •Built-in self diagnostics with detailed warning messages •Compact and lightweight (4 units high, approx. 19 kg/41 lb 14 oz), 19-inch rack mountable and low power consumption (85W)



Supplied accessories:	AC power cord Operation manual RS-232C Protocol manual
Optional accessories:	Component colour corrector BVX-10P S-video cable SYC-2/5 (2 m/5 m) Remote control unit SVRM-100A Foot switch FS-20 Rack mount unit RMM-130

Specifications

General

Type:	Recorder/player
Video recording system:	Rotary 4 head helical scan Luminance: FM recording Chrominance: FM recording (CTDM recording)
Video signal system:	CCIR monochrome/PAL colour
Power requirements:	AC 198 to 264V, 48 to 64Hz
Power consumption:	85W
Operating temperature:	5 to 40°C (41 to 104°F)
Storage temperature:	–20 to 60°C (–4 to 140°F)
Humidity:	Less than 80% (relative humidity)
Dimensions:	427 (W) × 193 (H) × 474 (D) mm ($16^{7}/_{8} \times 7^{5}/_{8} \times 18^{3}/_{4}$ inches)
Mass:	Approx. 19 kg (41 lb 14 oz)
Tape speed:	101.5 mm/s
Recording/playback time:	More than 100min with UVWT-90MLA More than 35min with UVWT-30MA
Fast forward time:	Less than 3min with UVWT-90MLA
Rewind time:	Less than 3min with UVWT-90MLA
Search speed (with optional SVRM-100A)*1:	Shuttle: 15 steps, still to 16 times normal speed, forward and reverse Jog: Frame by frame to ×2, forward and reverse

Video performance (Metal particle tape)

Bandwidth (50% modulation):	Luminance: 25Hz to 5.0MHz $^{+1.0}_{-4.0}$ dB Colour difference: 25Hz to 1.5MHz $^{+1.0}_{-4.0}$ dB
S/N ratio:	Luminance (Component in/out): More than 46dB Chrominance (1.0MHz LPF): AM; More than 48dB PM; More than 48dB
K-factor (2T pulse):	Less than 3%
Y/C delay:	Less than 30ns

Audio performance (Metal particle tape)

Frequency responce:	50Hz to 15kHz $^{+2.0}_{-3.0}$ dB (20dB below peak level)*2
S/N ratio:	More than 66dB (at peak level weighed CCIR468-3)*2
Distortion:	Less than 1.5% (at 1kHz/at operational level 4dBu)
Wow and flutter:	Less than 0.15% rms (DIN 45507)

Signal inputs

REF VIDEO:	BNC (2) Composite video: 1.0Vp-p, 75Ω, sync negative Composite sync: 0.2 to 5.0Vp-p, 75Ω, sync negative (with component I/O)
VIDEO IN:	BNC, Composite video, 1.0Vp-p, 75Ω, sync negative
RGB/COMPONENT IN:	BNC (3)*3, Y/Sync on G:1.0Vp-p, 75Ω, sync negative G: 0.7Vp-p, 75Ω R-Y/R: 0.7Vp-p, 75Ω B-Y/B: 0.7Vp-p, 75Ω
S-VIDEO IN:	Mini DIN 4-pin, Y: 1.0Vp-p, 75Ω C: 0.3Vp-p (burst), 75Ω
AUDIO IN CH-1/2:	XLR 3-pin female, 4dBu, 600Ω/10kΩ selectable balanced

Signal outputs

VIDEO OUT 1:	BNC, Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 2:	BNC, Composite video, 1.0Vp-p, 75Ω, sync negative with or without character insertion
RGB/COMPONENT OUT:	BNC (3)*3, Y/Sync on G: 1.0Vp-p, 75Ω, sync negative G: 0.7Vp-p, 75Ω R-Y/R: 0.7Vp-p, 75Ω B-Y/B: 0.7Vp-p, 75Ω
RGB SYNC OUT:	2Vp-p, 75Ω, sync negative
S-VIDEO OUT:	Mini DIN 4-pin, Y: 1.0Vp-p, 75Ω C: 0.3Vp-p (burst), 75Ω
AUDIO LINE OUT CH-1/2:	XLR 3-pin, male, 4dBu, 600Ω, balanced
AUDIO MONITOR OUT CH-1/2:	Phono, –6dBu

Others

REMOTE:	RS-232C 25-pin multi connector
REMOTE 2:	Stereo mini jack (for foot switch)
REMOTE OUT:	Stereo mini jack (for trigger to video printer)
CONTROL-S (SIRCS):	Stereo mini jack
HEADPHONES:	JM-60 headphone stereo jack

*1 Without SVRM-100A attached, search speed is 16 times forward and reverse with "REW/FFWD" button continuously depressed.

*2 Peak level: +8dB above operational level

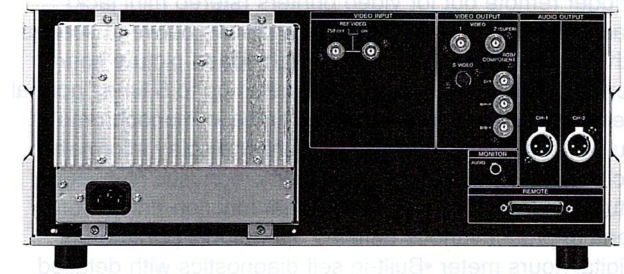
*3 Video amplitude 100/0/100/0 colour bars

UVW-1200P

Player

•Outstanding picture quality, thanks to Betacam SP format •More than 100 minutes of playback time using L-size metal Betacam SP cassettes •Two longitudinal audio channel with the Dolby C-type Noise Reduction system •Dedicated longitudinal time code track •Built-in Time Base Stabilizer with advanced high quality digital dropout compensation •Built-in EBU time code (LTC/User-bit) reader •25-pin remote control interface complied with RS-232C interface for external computer operation •Y/R-Y/B-Y component signal outputs via BNC connectors are switchable to RGB output connector •S-video (Y/C separate) output connector •High speed picture search provides recognizable colour picture at up to 5 times normal speed in forward and reverse (16 times in monochrome) •Built-in character generator to monitor display information such as VTR status, time code, self-diagnostic messages, setup menu, and so on •Auto repeat function •Initial setup menu to preset various detailed operational parameters •Digital hours meter •Built-in self diagnostics with detailed warning messages •Compact and lightweight (4 units high, approx. 17.5 kg/38 lb 9 oz), 19-inch rack mountable and low power consumption (63W)

SONY
POWER
HEADPHONES
CONTROL S
00:00:00:00
BETACAM SP
VIDEOCASSETTE PLAYER UVW-1200P



Supplied accessories:	AC power cord Operation manual RS-232C Protocol manual
Optional accessories:	Component colour corrector BVX-10P S-video cable SYC-2/5 (2 m/5 m) Remote control unit DSRM-10 Rack mount unit RMM-130

Specifications

General

Type:	Player
Video recording system:	Rotary 4 head helical scan Luminance: FM recording Chrominance: FM recording (CTDM recording)
Video signal system:	CCIR monochrome/PAL colour
Power requirements:	AC 198 to 264V, 48 to 64Hz
Power consumption:	63W
Operating temperature:	5 to 40°C (41 to 104°F)
Storage temperature:	–20 to 60°C (–4 to 140°F)
Humidity:	Less than 80% (relative humidity)
Dimensions:	427 (W) × 193 (H) × 474 (D) mm (16$^{7}/_{8}$ × 7$^{5}/_{8}$ × 18$^{3}/_{4}$ inches)
Mass:	Approx. 17.5 kg (38 lb 9 oz)
Tape speed:	101.5 mm/s
Playback time:	More than 100min with UVWT-90MLA More than 35min with UVWT-30MA
Fast forward time:	Less than 3min with UVWT-90MLA
Rewind time:	Less than 3min with UVWT-90MLA
Search speed (with optional DSRM-10)*1:	Shuttle: 15 steps, still to 16 times normal speed, forward and reverse Jog: Frame by frame to ×2, forward and reverse

Video performance (Metal particle tape)

Bandwidth (50% modulation):	Luminance: 25Hz to 5.0MHz $^{+1.0}_{-4.0}$ dB Colour difference: 25Hz to 1.5MHz $^{+1.0}_{-4.0}$ dB
S/N ratio:	Luminance (Component out): More than 46dB Chrominance (1.0MHz LPF): AM; More than 48dB PM; More than 48dB
K-factor (2T pulse):	Less than 3%
Y/C delay:	Less than 30ns

Audio performance (Metal particle tape)

Frequency responce:	50Hz to 15kHz $^{+2.0}_{-3.0}$ dB (20dB below peak level)*2
S/N ratio:	More than 66dB (at peak level weighed CCIR468-3)*2
Distortion:	Less than 1.5% (at 1kHz/at operational level 4dBu)
Wow and flutter:	Less than 0.15% rms (DIN 45507)

Signal inputs

REF VIDEO IN:	BNC, 1.0Vp-p, 75Ω

Signal outputs

VIDEO OUT 1:	BNC, Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 2:	BNC, Composite video, 1.0Vp-p, 75Ω, sync negative with or without character insertion
RGB/COMPONENT OUT:	BNC (3)*3, Y/Sync on G: 1.0Vp-p, 75Ω, sync negative R-Y/R: 0.7Vp-p, 75Ω B-Y/B: 0.7Vp-p, 75Ω
AUDIO LINE OUT CH-1/2:	XLR 3-pin, male, 4dBu, 600Ω, balanced
AUDIO MONITOR OUT CH-1/2:	Phono, –6dBu
S-VIDEO OUT:	Mini DIN 4-pin, Y: 1.0Vp-p, 75Ω C: 0.3Vp-p (burst), 75Ω

Others

REMOTE:	RS-232C 25-pin multi connector
CONTROL-S (SIRCS):	Stereo mini jack
HEADPHONES:	JM-60 headphone stereo jack

*1 Without DSRM-10 attached, search speed is 16 times forward and reverse with "REW/FFWD" button continuously depressed.
*2 Peak level: +8dB above operational level
*3 Video amplitude 100/0/100/0 colour bars

1-3 Betacam SP accessories

UVR-60P

TBC Remote controller

- Designed to control the Betacam SP studio VTR/DSR-85P/DSR-80P/DSR-60P/ EVO-9850P/SVO-5800P/SVP-5600P built-in TBCs
- 19-inch rack mountable: Can be installed individually with the supplied blank panel or with another UVR-60P

Power requirements:
DC 12V, 9V (supplied from VTR)
Power consumption:
840 mmW
Mass: 1.3 kg (2 lb 13 oz)
Dimension: 215 (W) × 44 (H) × 101 (D) mm
($8\frac{1}{2} \times 1\frac{3}{4} \times 4$ inches)

Supplied accessories:
Remote control cable (5 m)
Rack mount bracket
Blank panel
Screw
Operation manual

SONY
PRESET
NOISE REDUCTION
FREEZE
VIDEO
CHROMA
BLACK LEVEL
BURST/CHROMA
SYNC PHASE
SC PHASE
REMOTE CONTROL UNIT UVR-60P

BVX-10P

Component colour corrector

- Component signal colour corrector for Betacam VTR
- Preset/manual control of Gain, Black level and Gamma on R, G, B signals
- Easy connection—12-pin multi cables for component input and output, BNC connectors for component input and output (Y, B-Y, R-Y)
- Remote controller supplied (BVR-58)
- 19-inch rack mountable

Power requirements:
AC 198 to 264V, 50/60Hz
Power consumption: 40W
Mass: Main unit: 6.1 kg (13 lb 7 oz)
Remote controller:
0.9 kg (1 lb 15 oz)
Dimensions: Main unit:
424 (W) × 44 (H) × 410 (D) mm
($16\frac{3}{4} \times 1\frac{3}{4} \times 16\frac{1}{4}$ inches)
Remote controller:
212 (W) × 44 (H) × 110 (D) mm
($8\frac{3}{4} \times 1\frac{3}{4} \times 4\frac{3}{8}$ inches)
Supplied accessories:
Rack mount units (2)
Remote control cable
(5 m, 25-pin)
Operation and maintenance manual

BKW-2010

Control panel extension kit

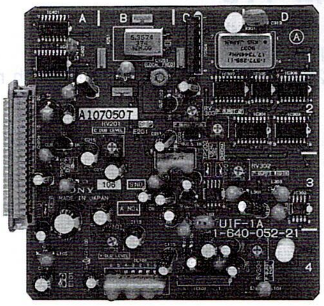
- Designed to remotely control the PVW-2800P/2650P/2600P
- Composition—Blank panel (1), 15-pin remote control cable (1), Cable for the internal circuits (1)

BKW-2030

U-matic DUB output kit

- Enables transformation of Betacam SP material from a PVW VTR to a U-matic VTR

Dimension: 100 (W) × 104 (H) × 15 (D) mm
($4 \times 4\frac{1}{8} \times \frac{9}{32}$ inches)
Mass: 70 g (2.5 oz)

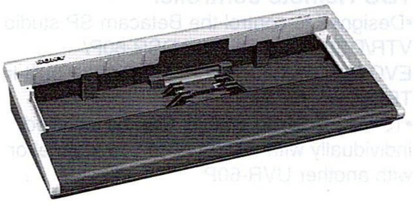


BK-803

Control panel case

- Mounts the control panel which is removed from PVW-2800P/2650P/2600P
- Used with BKW-2010

Dimension: 448 (W) × 56.5 (H) × 218 (D) mm ($17\frac{3}{4} \times 2\frac{1}{4} \times 8\frac{5}{8}$ inches)



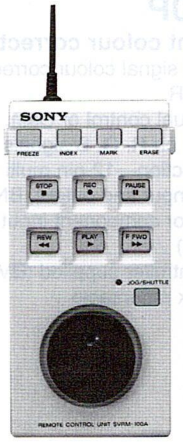
SVRM-100A

Remote control unit

- Designed to remotely control the UVW-1700GP and UVW-1400AP
- Provides wired remote control operation for STOP/REC/PAUSE/REW/PLAY/FFWD
- JOG/SHUTTLE operation •Enables ±16 times normal speed in search operation

Specifications

Power requirements:	DC 5V (supplied from the VTR)
Power consumption:	40 mW
Remote control:	Stereo mini plug
Control signal:	Control S
Dimensions:	90 (W) × 39 (H) × 182 (D) mm ($3\frac{5}{8} \times 1\frac{9}{16} \times 7\frac{1}{4}$ inches)
Mass:	250 g (8.8 lb)


SONY
FREEZE
INDEX
MARK
ERASE
STOP
REC
PAUSE
REW
PLAY
F FWD
JOG/SHUTTLE
REMOTE CONTROL UNIT SVRM-100A

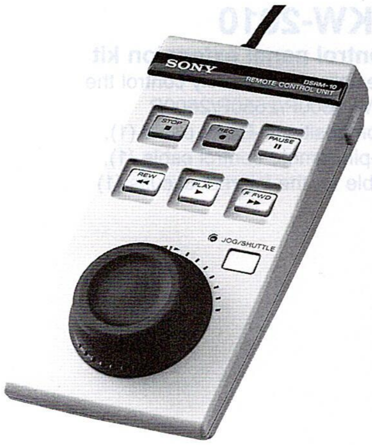
DSRM-10

Remote Control Unit

- Designed to remotely control the UVW VTRs (UVW-1800P/UVW-1600P/ UVW-1200P), DVCAM VTRs (DSR-85P/DSR-80P/DSR-60P) and S-VHS VTRs (SVO-9620/SVP-9020)
- Provides wired remote control operation for STOP/REC/PAUSE/REW/PLAY/FFWD
- JOG/SHUTTLE operation
- Enables ±16 times normal speed in search operation

Specifications

Power requirements:	DV 5V (supplied from the connected VTR)
Power consumption:	50 mW
Remote control:	Stereo mini-plug (with attached cable, length 3 m (10ft))
Dimensions:	90 (W) × 46 (H) × 182 (D) mm ($3\frac{5}{8} \times 1\frac{13}{16} \times 7\frac{1}{4}$ inches)
Mass:	Approx. 360 g (12oz)
Supplied accessory:	Operating instructions


SONY
DSRM-10
REMOTE CONTROL UNIT
STOP
REC
PAUSE
REW
PLAY
F FWD
JOG/SHUTTLE

RMM-110

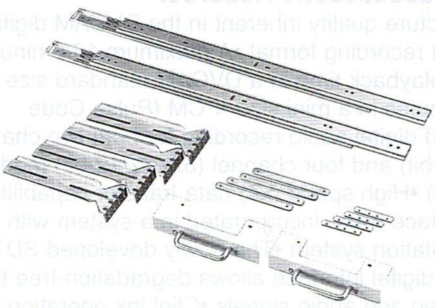
Rack mount kit

- Designed for use in mounting PVW-2800P/2650P/2600P into 19-inch rack

RMM-130

Rack mount kit

- Designed for use in mounting UVW1800P/1700GP/1600P/1400AP/1200P into 19-inch rack



VA-300P

Playback Adaptor

- Provides full colour replay from UVW-100BP, PVV-3P
- Single 20-pin multicable connection to recorder
- 2m cable supplied with VA-300P
- Composite and Y/C video signal output
- Two channel audio replay
- Provided with digital component TBS (Time Base Stabilizer) with high quality digital dropout compensation
- External SYNC lock capability

Power requirements:	DC $12\text{V}^{+5.0}_{-1.5}$V
Power consumption:	11W
Mass:	Approx. 1.6 kg (3 lb 8 oz)
Dimensions:	212 (W) × 88 (H) × 222 (D) mm ($8^3/_8 \times 3^1/_2 \times 8^3/_4$ inches)
Supplied accessories:	Connecting cable (2 m, 20-pin) Operation manual

RM-81

Remote control unit

- To START/STOP the recording mode of the UVW-100BP Betacam SP one-piece camcorder

Connector: Stereo mini

Cable length: 5 m

DSR-85P

Digital Videocassette Recorder

•Superb picture quality inherent in the DVCAM digital component recording format •A maximum 184 minutes of recording/playback time in a DVCAM standard size cassette and 40 minutes in a mini size •PCM (Pulse Code Modulation) digital audio recording for both two channel (48kHz/16-bit) and four channel (32kHz/12-bit) modes (selectable) •High speed (×4) data transfer capability via the QSDI interface when incorporated in a system with Sony ES-7 EditStation system •The newly developed SDTI (QSDI™)* digital interface allows degradation-free transfer of both video and audio signals •ClipLink operation •High speed tape dubbing with ClipLink Log Data •Extensive analogue interfaces including composite, component, and S-Video •Remote control via RS-422A •Built-in EBU time code generator/ reader •Time base corrector •Digital slow function (0 to ±0.25) •Frame accurate editing capability •High speed picture search (× ±32) •Jog audio (× ±1/30 to 1) •SDI (Serial Digital Interface) with an optional DSBK-120P SDI Input/Output Board •AES/EBU digital audio •Built-in character generator •Highly legible front panel display • Consumer DV playback capability without need for a special adaptor •Both standard and mini size cassettes are available without need for a special adaptor •Quick responsive mechanism •Built-in self-diagnostics and an error log function •Hours meter •Four units (4U) high, EIA standard 19-inch rack mountable

*SDTI (Serial Data Transport Interface) is defined as SMPTE 305M.
SDTI (QSDI) is the DV signal interface which conforms to the SDTI standard.

Supplied accessories:	AC power cord Operating instructions ClipLink Guide RCC-5G Remote Control Cable
Optional accessories:	SDI Input/Output Board DSBK-120P Time Code Input/Output Board DSBK-130P Remote Control Unit DSRM-10 Rack Mount Kit RMM-130 TBC Remote Control Unit UVR-60P Remote Control Cable RCC-5G/10G/30G (5 m/10 m/30 m)

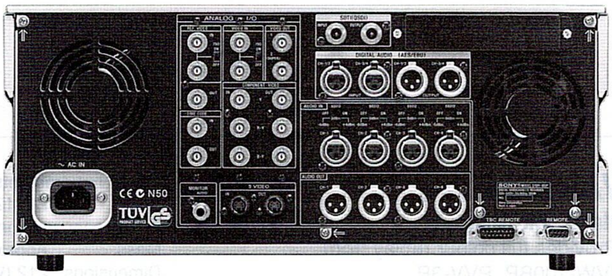
Specifications

General

Type:	High speed editing recorder/player
Video recording system:	Rotary 14 head helical scan Luminance : FM recording Chrominance : FM recording
Video signal system:	CCIR monochrome/PAL colour
Power requirements:	AC220 to 240V, 50/60Hz
Power consumption:	185W
Operating temperature:	5˚C to 40˚C (41˚F to 104˚F)
Storage temperature:	–20˚C to 60˚C (–4˚F to 140˚F)
Operating humidity:	Less than 80%
Storage humidity:	Less than 90%
Mass:	21 kg (46 lb 4 oz)
Dimensions:	427 (W) × 174 (H) × 494 (D) mm (16⅞ × 6⅞ × 19½ inches) excluding external projections
Tape speed:	28.221 mm/s
Recording/Playback time:	
Standard size	More than 184min. w/PDV-184ME/184N
Mini size	More than 40min. w/PDVM-40ME/40N
Fast forward/Rewind time:	
Standard size	Less than 3min. w/PDV-184ME/184N
Mini size	Less than 1min. w/PDVM-40ME/40N
Search speed:	
When controlling via RS-422A	Search speed is up to 32 times forward and reverse
When cotrolling via DSRM-10:	
Jog mode	Frame by frame to ×2, forward and reverse
Shuttle mode	8 steps, still to ×16 normal speed, forward and reverse
Digital slow mode	3 steps, still, ×1/5 and ×1/10 normal speed, forward and reverse
Jog audio mode	×1/30 to ×1, forward and reverse

Video Performance

Band width (via analogue component I/O):	
Luminance	25Hz ~ 5.5MHz +1.0/–2.0dB 5.75MHz +0/–3.0dB (Typical measurement)
Chrominance	25Hz ~ 2.0MHz +1.0/–2.0dB



S/N ratio (via analogue component I/O):	More than 55dB
K-factor (K2T, KPB):	Less than 2.0%
Y/C delay:	Less than 30ns

Audio Performance

Frequency response	
2CH mode (48kHz/16-bit):	20Hz ~ 20kHz +0.5/–1.0dB
4CH mode (32kHz/12-bit):	20Hz ~ 14.5kHz +0.5/–1.0dB
Dynamic range:	More than 85dB
Distortion (THD+N):	Less than 0.05%

Signal Inputs

Video

REF.VIDEO (BNC) (2), loop-through connection):	Composite, 1.0Vp-p, 75Ω, sync negative
VIDEO (BNC) (2), loop-through connection):	Composite, 1.0Vp-p, 75Ω, sync negative
COMPONENT (BNC) (3):	Y: 1.0Vp-p, 75Ω, sync negative R-Y: 0.7Vp-p, 75Ω B-Y: 0.7Vp-p, 75Ω
S-Video (DIN 4-pin):	Y : 1.0Vp-p, 75Ω, sync negative C : 0.3Vp-p, 75Ω (at burst level)
SDI[*1] (BNC) (2), active-through connection):	Conforms to Serial Digital Interface (270Mbps), ITU-R BT.656
SDTI (QSDI) (BNC) (1):	Conforms to SDTI (270Mbps), SMPTE 305M

Audio

AUDIO (XLR 3-pin female) (4):	–9dBu to 28dBu, 600Ω/10kΩ, balanced
AES/EBU (XLR 3-pin female) (2):	110Ω, balanced

Signal Outputs

Video

REF.VIDEO (BNC) (1):	0.3Vp-p, 75Ω, sync negative
VIDEO 1/2 (SUPER) (BNC) (2):	Composite, 1.0Vp-p, 75Ω, sync negative
COMPONENT (BNC) (3):	Y: 1.0Vp-p, 75Ω, sync negative R-Y: 0.7Vp-p, 75Ω B-Y: 0.7Vp-p, 75Ω
S-Video (DIN 4-pin):	Y : 1.0Vp-p, 75Ω, sync negative C : 0.3Vp-p, 75Ω (at burst level)
SDI[*1] (BNC) (2):	Conforms to Serial Digital Interface (270Mbps), ITU-R BT.656
SDTI (QSDI) (BNC) (1):	Conforms to SDTI (270Mbps), SMPTE 305M

Audio

AUDIO (XLR 3-pin male) (4):	4dBu, 600Ω loading, low impedance, balanced
AUDIO MONITOR (RCA phono jack) (1):	–6dBu, 47kΩ, unbalanced
HEADPHONES (JM-60 headphone jack) (1):	–16dBu, 8Ω, unbalanced
AES/EBU (XLR 3-pin male) (2):	2 to 7Vp-p, 110Ω, balanced

Time Code Input/Output[*2]

Time Code In (BNC) (1):	0.5Vp-p to 18Vp-p, 3kΩ, unbalanced
Time Code Out (BNC) (1):	2.2Vp-p, 600Ω, unbalanced

Remote

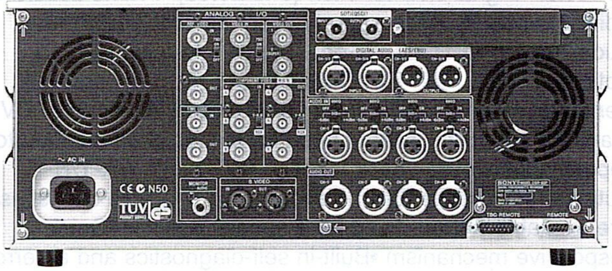
RS-422A:	9-pin multi connector (1)
TBC:	15-pin connector (1)
CONTROL-S (SIRCS):	Stereo mini jack (1)

[*1] Using optional DSBK-120P (SDI Input/Output Board)
[*2] Using optional DSBK-130P (Time Code Input/Output Board)

DSR-80P

Digital Videocassette Recorder

•Superb picture quality inherent in the DVCAM digital component recording format •A maximum 184 minutes of recording/playback time in a DVCAM standard size cassette and 40 minutes in a mini size •PCM (Pulse Code Modulation) digital audio recording for both two channel (48kHz/16-bit) and four channel (32kHz/12-bit) modes (selectable) •The newly developed SDTI (QSDI)* digital interface allows degradation-free transfer of both video and audio signals •ClipLink operation •Full tape dubbing with ClipLink Log Data •Extensive analogue interfaces including composite, component, and S-Video •Remote control via RS-422A •Built-in EBU time code generator/reader •Time base corrector •Digital slow function (0 to ±0.39) •Frame accurate editing capability •High speed picture search (× ±32) •Jog audio (× ±1/30 to 1) •SDI (Serial Digital Interface) with an optional DSBK-120P SDI Input/Output Board •AES/EBU digital audio •Built-in character generator •Highly legible front panel display •Consumer DV playback capability without need for a special adaptor •RGB and Y/R-Y/B-Y inputs and outputs (selectable) •Both standard and mini size cassettes are available without need for a special adaptor •Quick responsive mechanism •Built-in self-diagnostics and an error log function •Hours meter •Four units (4U) high, EIA standard 19-inch rack mountable



*SDTI (Serial Data Transport Interface) is defined as SMPTE 305M.
SDTI (QSDI) is the DV signal interface which conforms to the SDTI standard.

Supplied accessories:	AC power cord Operating instructions ClipLink Guide RCC-5G Remote Control Cable
Optional accessories:	SDI Input/Output Board DSBK-120P Time Code Input/Output Board DSBK-130P Remote Control Unit DSRM-10 Rack Mount Kit RMM-130 TBC Remote Control Unit UVR-60P Remote Control Cable RCC-5G/10G/30G (5 m/10 m/30 m)

Specifications

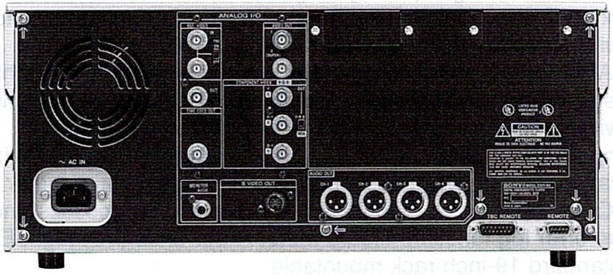
General	
Type:	Editing recorder/player
Video recording system:	Rotary 6 head helical scan Luminance : FM recording Chrominance : FM recording
Video signal system:	CCIR monochrome/PAL colour
Power requirements:	AC220 to 240V, 50/60Hz
Power consumption:	145W
Operating temperature:	5˚C to 40˚C (41˚F to 104˚F)
Storage temperature:	–20˚C to 60˚C (–4˚F to 140˚F)
Operating humidity:	Less than 80%
Storage humidity:	Less than 90%
Mass:	19 kg (41 lb 14 oz)
Dimensions:	427 (W) × 174 (H) × 494 (D) mm (16⅞ × 6⅞ × 19½ inches) excluding external projections
Tape speed:	28.221 mm/s
Recording/Playback time:	
Standard size	More than 184min. w/PDV-184ME/184N
Mini size	More than 40min. w/PDVM-40ME/40N
Fast forward/Rewind time:	
Standard size	Less than 3min. w/PDV-184ME/184N
Mini size	Less than 1min. w/PDVM-40ME/40N
Search speed:	
When controlling via RS-422A	Search speed is up to 32 times forward and reverse
When cotrolling via DSRM-10	
Jog mode	Frame by frame to ×2, forward and reverse
Shuttle mode	8 steps, still to ×16 normal speed, forward and reverse
Digital slow mode	3 steps, still, ×1/5 and ×1/10 normal speed, forward and reverse
Jog audio mode	×1/30 to ×1, forward and reverse
Video Performance	
Band width (via analogue component I/O):	
Luminance	25Hz ~ 5.5MHz +1.0/–2.0dB 5.75MHz +0/-3.0dB (Typical measurement)
Chrominance	25Hz ~ 2.0MHz +1.0/–2.0dB
S/N ratio (via analogue component I/O):	More than 55dB
K-factor (K2T, KPB):	Less than 2.0%
Y/C delay:	Less than 30ns
Audio Performance	
Frequency response:	
2CH mode (48kHz/16-bit):	20Hz ~ 20kHz +0.5/–1.0dB
4CH mode (32kHz/12-bit):	20Hz ~ 14.5kHz +0.5/–1.0dB
Dynamic range:	More than 85dB
Distortion (THD+N):	Less than 0.05%
Signal Inputs	
Video	
REF.VIDEO (BNC) (2), loop-through connection):	Composite, 1.0Vp-p, 75Ω, sync negative
VIDEO (BNC) (2), loop-through connection):	Composite, 1.0Vp-p, 75Ω, sync negative
RGB/COMPONENT (BNC) (3) (selectable):	Y/R-Y/B-Y: Y : 1.0Vp-p, 75Ω, sync negative R-Y/B-Y: 0.7Vp-p, 75Ω (75%) R.G (w/o sync).B : 0.7Vp-p, 75Ω G (w/sync) : 1.0Vp-p, 75Ω, sync negative
S-Video (DIN 4-pin):	Y : 1.0Vp-p, 75Ω, sync negative C : 0.3Vp-p, 75Ω (at burst level)
SDI*1 (BNC) (2), active-through connection):	Conforms to Serial Digital Interface (270Mbps), ITU-R BT.656
SDTI (QSDI) (BNC) (1)	Conforms to SDTI (270Mbps), SMPTE 305M
Audio	
AUDIO (XLR 3-pin female) (4):	–9dBu to 28dBu, 600Ω/10kΩ, balanced
AES/EBU (XLR 3-pin female) (2):	110Ω, balanced
Signal Outputs	
Video	
REF.VIDEO (BNC) (1):	
Black burst	0.3Vp-p, 75Ω, sync negative
Composite sync*	2.0Vp-p, 75Ω, sync negative * when not adding sync to RGB output
VIDEO 1/2 (SUPER) (BNC) (2):	Composite, 1.0Vp-p, 75Ω, sync negative
RGB/COMPONENT (BNC) (3) (selectable):	Y/R-Y/B-Y : Y : 1.0Vp-p, 75Ω, sync negative R-Y/B-Y : 0.7Vp-p, 75Ω (75%) R.G (w/o sync).B : 0.7Vp-p, 75Ω G (w/sync) : 1.0Vp-p, 75Ω, sync negative
S-Video (DIN 4-pin):	Y : 1.0Vp-p, 75Ω, sync negative C : 0.3Vp-p, 75Ω (at burst level)
SDI*1 (BNC) (2):	Conforms to Serial Digital Interface (270Mbps), ITU-R BT.656
SDTI (QSDI) (BNC) (1):	Conforms to SDTI (270Mbps), SMPTE 305M
Audio	
AUDIO (XLR 3-pin male) (4):	4dBu, 600Ω loading, low impedance, balanced
AUDIO MONITOR (RCA phono jack) (1):	–6dBu, 47kΩ, unbalanced
HEADPHONES (JM-60 headphone jack) (1):	–16dBu, 8Ω, unbalanced
AES/EBU (XLR 3-pin male) (2):	2 to 7Vp-p, 110Ω, balanced
Time Code Input/Output*2	
Time Code In (BNC) (1):	0.5Vp-p to 18Vp-p, 3kΩ, unbalanced
Time Code Out (BNC) (1):	2.2Vp-p, 600Ω, unbalanced
Remote	
RS-422A:	9-pin multi connector (1)
TBC:	15-pin connector (1)
CONTROL-S (SIRCS):	Stereo mini jack (1)

*1 Using optional DSBK-120P (SDI Input/Output Board)
*2 Using optional DSBK-130P (Time Code Input/Output Board)

DSR-60P

Digital Videocassette Player

•Superb picture quality inherent in the DVCAM digital component recording format •A maximum 184 minutes of playback time in a DVCAM standard size cassette and 40 minutes in a mini size •PCM (Pulse Code Modulation) digital audio recording for both two channel (48kHz/16-bit) and four channel (32kHz/12-bit) modes (selectable) •SDTI (QSDI)* interface with an optional DSBK-110P QSDI Output Board •ClipLink operation •Extensive analogue interfaces including composite, component, and S-Video •Remote control via RS-422A •Built-in EBU time code reader •Time base corrector •Digital slow function (0 to ±0.33) •Frame accurate editing capability •High speed picture search (× ±32) •Jog audio (× ±1/30 to 1) •SDI (Serial Digital Interface) with an optional DSBK-100P SDI Output Board •Built-in character generator •Highly legible front panel display •Consumer DV playback capability without need for a special adaptor •Auto repeat/power-on playback function •RGB and Y/R-Y/B-Y outputs (selectable) •Both standard and mini size cassettes are available without need for a special adaptor •Quick responsive mechanism •Built-in self-diagnostics and an error log function •Hours meter •Four units (4U) high, EIA standard 19-inch rack mountable



*SDTI (Serial Data Transport Interface) is defined as SMPTE 305M.
SDTI (QSDI) is the DV signal interface which conforms to the SDTI standard.

Supplied accessories:	AC power cord Operating instructions ClipLink Guide RCC-5G Remote Control Cable
Optional accessories:	SDI Output Board DSBK-100P QSDI Output Board DSBK-110P Time Code Input/Output Board DSBK-130P (Output only) Remote Control Unit DSRM-10 Rack Mount Kit RMM-130 TBC Remote Control Unit UVR-60P Remote Control Cable RCC-5G/10G/30G (5 m/10 m/30 m)

Specifications

General

Type:	Editing player
Video recording system:	Rotary 2 head helical scan Luminance : FM recording Chrominance : FM recording
Video signal system:	CCIR monochrome/PAL colour
Power requirements:	AC220 to 240V, 50/60Hz
Power consumption:	87W
Operating temperature:	5˚C to 40˚C (41˚F to 104˚F)
Storage temperature:	–20˚C to 60˚C (–4˚F to 140˚F)
Operating humidity:	Less than 80%
Storage humidity:	Less than 90%
Mass:	18 kg (39 lb 10 oz)
Dimensions:	427 (W) × 174 (H) × 494 (D) mm (16⅞ × 6⅞ × 19½ inches) excluding external projections
Tape speed:	28.221 mm/s
Recording/Playback time:	
Standard size	More than 184min. w/PDV-184ME/184N
Mini size	More than 40min. w/PDVM-40ME/40N
Fast forward/Rewind time:	
Standard size	Less than 3min. w/PDV-184ME/184N
Mini size	Less than 1min. w/PDVM-40ME/40N
Search speed:	
When controlling via RS-422A	Search speed is up to 32 times forward and reverse
When cotrolling via DSRM-10	
Jog mode	Frame by frame to ×2, forward and reverse
Shuttle mode	8 steps, still to ×16 normal speed, forward and reverse
Digital slow mode	3 steps, still, ×1/5 and ×1/10 normal speed, forward and reverse
Jog audio mode	×1/30 to ×1, forward and reverse

Video Performance

Band width (via analogue component I/O):	
Luminance	25Hz ~ 5.5MHz +1.0/–2.0dB 5.75MHz +0/-3.0dB (Typical measurement)
Chrominance	25Hz ~ 2.0MHz +1.0/–2.0dB
S/N ratio (via analogue component I/O):	More than 55dB
K-factor (K2T, KPB):	Less than 2.0%
Y/C delay:	Less than 30ns

Audio Performance

Frequency response:	
2CH mode (48kHz/16-bit)	20Hz ~ 20kHz +0.5/–1.0dB
4CH mode (32kHz/12-bit)	20Hz ~ 14.5kHz +0.5/–1.0dB
Dynamic range:	More than 85dB
Distortion (THD+N):	Less than 0.05%

Signal Inputs

Video

REF.VIDEO (BNC) (2), loop-through connection):	Composite, 1.0Vp-p, 75Ω, sync negative

Signal Outputs

Video

REF.VIDEO (BNC) (1):	
Black burst	0.3Vp-p, 75Ω, sync negative
Composite sync*	2.0Vp-p, 75Ω, sync negative * when not adding sync to RGB output
VIDEO 1/2 (SUPER) (BNC) (2):	Composite, 1.0Vp-p, 75Ω, sync negative
RGB/COMPONENT (BNC) (3) (selectable):	Y/R-Y/B-Y : Y : 1.0Vp-p, 75Ω, sync negative R-Y/B-Y : 0.7Vp-p, 75Ω (75%) R.G (w/o sync).B : 0.7Vp-p, 75Ω G (w/sync) : 1.0Vp-p, 75Ω, sync negative
S-Video (DIN 4-pin):	Y : 1.0Vp-p, 75Ω, sync negative C : 0.3Vp-p, 75Ω (at burst level)
SDI*1 (BNC) (2):	Conforms to Serial Digital Interface (270Mbps), ITU-R BT.656
SDTI (QSDI)*2 (BNC) (1):	Conforms to SDTI (270Mbps), SMPTE 305M

Audio

AUDIO (XLR 3-pin male) (4):	4dBu, 600Ω loading, low impedance, balanced
AUDIO MONITOR (RCA phono jack) (1):	–6dBu, 47kΩ, unbalanced
HEADPHONES (JM-60 headphone jack) (1):	–16dBu, 8Ω, unbalanced

Time Code Output*3

Time Code Out (BNC) (1):	2.2Vp-p, 600Ω, unbalanced

Remote

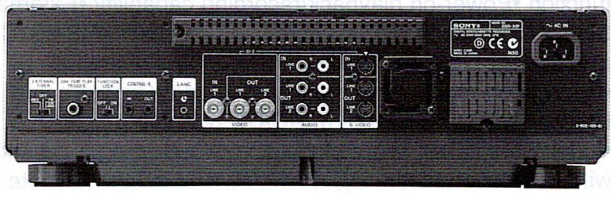
RS-422A:	9-pin multi connector (1)
TBC:	15-pin connector (1)
CONTROL-S (SIRCS):	Stereo mini jack (1)

*1 Using optional DSBK-100P (SDI Output Board)
*2 Using optional DSBK-110P (QSDI Output Board)
*3 Using optional DSBK-130P (Time Code Input/Output Board)

DSR-30P

Digital Videocassette Recorder

•Superb picture quality inherent in the DVCAM digital component recording format •A maximum 184 minutes of recording/playback time in a DVCAM standard size cassette and 40 minutes in a mini size •PCM (Pulse Code Modulation) digital audio recording for both two channel (48kHz/16-bit) and four channel (32kHz/12-bit) modes (selectable) •i.LINK* (DV In/Out) inferface based on the IEEE 1394 standard •LANC interface for remote control operation and LANC editing •External timer recording •Duplication mode with the original time code •Clear frame picture •Control tray with a jog (1/5 times normal speed) and shuttle (within 1/5 to 18 times normal speed) dial •Supplied wireless remote controller •Headphone/microphone input •Both standard and mini size cassettes are available without need for a special adaptor •Function lock to avoid accidental operation •Auto repeat/One programme play •Power-on playback/recording capability •Index/Photo/Date search functions



*i.LINK stands for IEEE 1394-1995 standards and their revisions.
i is the logo for products that implement i.LINK.

Supplied accessories:	AC power cord Operating instructions Wireless Remote Controller RMT-DS30 R6 batteries LANC cable Cleaning cassette DVM12CL
Optional accessories:	VMC-IL4415 i.LINK cable VMC-IL4435 i.LINK cable VMC-IL4615 i.LINK cable VMC-IL4635 i.LINK cable Editing System FXE-120P LANC Interface Box IF-FXE2

Specifications

General

Type:	Recorder
Video signal system:	CCIR monochrome/PAL colour
Power requirements:	AC220 to 240V, 50/60Hz
Power consumption:	32W
Operating temperature:	5˚C to 40˚C (41˚F to 104˚F)
Storage temperature:	–20˚C to 60˚C (–4˚F to 140˚F)
Mass:	Approx. 9.2 kg (20 lb 4 oz)
Dimensions:	430 (W) × 129 (H) × 374 (D) mm (17 × 5⅛ × 14¾ inches)
Tape speed:	28.221 mm/s (DVCAM mode) 18.79 mm/s (DV playback mode)
Recording/Playback time:	
Standard size	More than 184min. w/PDV-184ME/184N
Mini size	More than 40min. w/PDVM-40ME/40N
Fast forward/Rewind time:	
Standard size	Less than 2min. w/PDV-184ME/184N
Search speed:	–2, –1, –1/5, still, 1/5, 1, 2 times Cue/Review (10 or 18 times)

Signal Inputs

Video (ANALOGUE)

VIDEO (BNC (1), pin jack (1)):	Composite, 1.0Vp-p, 75Ω, sync negative
S-Video (DIN 4-pin) (2):	Y: 1.0Vp-p, 75Ω, sync negative, unbalanced C : 0.3Vp-p (subcarrier burst), 75Ω, unbalanced

Video (DIGITAL)

i.LINK (DV In/Out) (4-pin (1)):	IEEE-1394 based

Audio (ANALOGUE)

Audio (Phono jacks (stereo) rear (1), front (1)):	Input level : 2Vrms (full bit)

Signal Outputs

Video (ANALOGUE)

VIDEO (BNC (2), pin jack (1)):	Composite, 1.0Vp-p, 75Ω, sync negative
S-Video (DIN 4-pin) (2):	Y : 1.0Vp-p, 75Ω, sync negative, unbalanced C : 0.3Vp-p (subcarrier burst), 75Ω, unbalanced

Video (DIGITAL)

i.LINK (DV In/Out) (4-pin (1))*:	IEEE-1394 based

Audio (ANALOGUE)

Audio (PIN jacks (2) (L·R)):	Output level : 2Vrms (full bit)

Remote

LANC:	Stereo mini jack (1) (front (1), rear (1), priority on the front)
CONTROL-S input:	Stereo mini jack (1)
CONTROL-S output:	Stereo mini jack (1)

Others

i.LINK (DV In/Out):	4-pin jack (1), IEEE-1394
Headphone jack:	Stereo mini jack (1)
Trigger input:	Phone jack (1) (active short)

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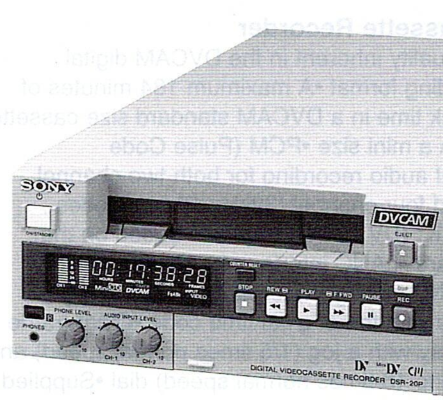
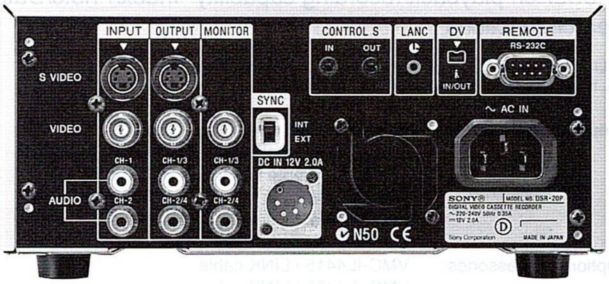
*Shared with input connector.

DSR-20P

Digital Videocassette Recorder

•Superb picture quality in the DVCAM digital component recording format •PCM (Pulse Code Modulation) digital audio recording for both two channel (48 kHz/16-bit) and four channel (32 kHz/12-bit) modes (selectable) •Playback capability of consumer DV recorded tapes (SP mode only) without need for a special adaptor •Long recording time; up to 184 minutes with a standard cassette and 40 minutes with a mini cassette •i.LINK*1 (DV In/Out) interface based on the IEEE1394 standard •LANC interface for simple editing with a LANC-based recorder or editing system •Auto repeat function •Power-on playback/recording capability •External Sync*2 In connector for synchronized playback •RS-232C and Control S interfaces for remote control operation •Duplication mode with original time code •Compact and lightweight (half-rack width) •AC/DC operation •Index/Photo/Date search functions (when using a cassette with IC Cassette Memory) •RMT-DS20 Wireless Remote Controller (supplied) for control of basic functions





*1 i.LINK stands for IEEE1394-1995 standards and their revisions. ℹ is the logo for products that implement i.LINK.
*2 The DSR-20P locks to H-sync or V-sync.

Supplied accessories:	Wireless remote controller RMT-DS20 (1)
	R6 batteries (2)
	Cleaning cassette DCM12CLE (1)
	AC power cord (1)
	Operation manual (1)
	RS-232C protocol manual (1)
Optional accessories:	LANC Interface Box IF-FXE2
	Remote Control Unit DSRM-10
	VMC-IL4415 i.LINK Cable
	VMC-IL4435 i.LINK Cable
	VMC-IL4615 i.LINK Cable
	VMC-IL4635 i.LINK Cable

Specifications

General

Type:	Recorder
Video signal standard:	CCIR standards, PAL colour
Power requirement:	AC: 220 to 240 V, 50/60 Hz DC: 12 V
Power consumption:	AC: 28 W DC: 2.0 A (4.0A PEAK)
Operating temperature:	5 °C to 40 °C (41 °F to 104 °F)
Storage temperature:	-20 °C to 60 °C (-4 °F to 140 °F)
Mass:	Approx. 5.0 kg (11 lb)
Dimensions:	215 (W) × 98 (H) × 392 (D) mm (8 ½ × 3 ⁷⁄₈ × 15 ½ inches) (including external projections)
Tape speed:	
DVCAM mode:	28.221 mm/s
DV SP playback mode:	18.79 mm/s
Recording/Playback time:	
Standard size:	More than 184 min. with PDV-184ME/184N
Mini size:	More than 40 min. with PDVM-40ME/40N
Tape rewind time:	Less than 2 min. with PDV-184ME/184N
Search speed (via RMT-DS20 or DSRM-10):	-2, -1, -1/5, Still, 1/5, 1, 2, Cue/Review (10 or 18 times)

Signal Inputs

Video (ANALOGUE)

VIDEO (BNC (1))*1:	Composite, 1.0 Vp-p, 75 Ω, unbalanced, sync negative
S-Video (DIN 4-pin (1)):	Y:1.0 Vp-p, 75 Ω, unbalanced, sync negative C:0.3 Vp-p (subcarrier), 75 Ω, unbalanced

Video (DIGITAL)

i.LINK (DV In/Out) (4-pin(1)):	IEEE1394-based

Audio(ANALOGUE)

AUDIO (RCA phono jack(2)(L, R)):	2 Vrms (full bit)

Signal outputs

Video(ANALOGUE)

VIDEO (BNC (1), monitor OUT (1)):	Composite, 1.0 Vp-p, 75 Ω, unbalanced, sync negative
S-Video (DIN 4-pin (1))	Y: 1.0 Vp-p, 75 Ω, unbalanced, sync negative C: 0.3 Vp-p (subcarrier), 75 Ω, unbalanced

Video(DIGITAL)

i.LINK (DV In/Out)(4-pin (1))*2:	IEEE1394 based

Audio(ANALOGUE)

AUDIO (RCA phono jack (2)(L, R)):	2 Vrms (full bit) L: CH1, CH3, or CH1/3 mix R: CH2, CH4, or CH2/4 mix

OTHERS

LANC	Stereo mini-mini jack (1)
RS-232C	D-sub 9-pin (cross) (1)
Control S	Stereo mini jack (IN (1) / OUT (1))
DC IN	12 V, Canon 4-pin (1)
Headphone jack	Stereo mini (1)

*1 Shared with the External Sync IN
*2 Shared with input connector

DSR-1P

Digital Videocassette Recorder

•Superb picture quality inherent in the DVCAM digital component recording format •Dual interface mechanism - directly connected with both digital and analogue cameras due to incorporation of both Pro 76-pin Digital and analogue Pro 50-pin connectors (DXC-D30P, DXC-D30WSP, DXC-637P, DXC-537AP, DXC-537P, DXC-327AP and DXC-327BP) •Perfect camcorder operation by docking with the DXC-D30P Digital Camera to create the DSR-130P •Dual-size cassette mechanism allows both DVCAM standard cassette and mini cassette tapes to be used without any special adaptor •A maximum 184 minutes of recording/playback time in a DVCAM standard size cassette and 40 minutes in a mini size •PCM (Pulse Code Modulation) digital audio recording for both two channel (48kHz/16-bit) and four channel (32kHz/12-bit, only CH-1/CH-2) modes (selectable) •Compact and lightweight 2.85 kg (6 lb 4 oz including NP-1B battery) •Low power consumption: approx. 12W •Lightweight rugged magnesium diecast body and small drum mechanism •Full colour picture playback capability in the field without a playback adaptor •ClipLink operation •Camera setup data file system (w/DXC-D30P and DXC-D30WSP) •Time code display in playback (w/DXC-D30P and DXC-D30WSP) •Record review function •Viewfinder playback capability for field verification •Built-in EBU time code generator/reader •Time base stabilizer •Frame accurate back space editing •Built-in speaker •Selectable battery packs to extend operating time •Equipped with a DC out for the wireless microphone •Built-in external microphone power supply (+48V) •Easy integration with Anton/Bauer® equipment •Full range of controls are provided (Fast Forward/Rewind/Play/Stop/Eject) •Comprehensive 8-digit LCD •Easy menu selection on the LCD •Built-in self-diagnostics with character display on TV monitor •Digital hours meter

Supplied accessories:	Shoulder strap Lithium-ion button cell (type CR2032) Operating instructions ClipLink Guide Connector cap M4 ×6 Screws (2) M4 ×12 Screws (2)
Optional accessories:	Rechargeable NiCd Battery NP-1B Rechargeable NiCd Battery BP-90A Rechargeable Lithium-ion Battery BP-L60/L90 Battery Case (for NP-1B) DC-520 Battery Case (for BP-90A) DC-500 Battery Case (for BP-90A, waist belt type) DC-210 Battery Adaptor (for BP-L60/L90) BKW-L601 Battery Charger (for NP-1B) BC-1WDCE Battery Charger (for BP-90A/NP-1B) BC-410CE Battery Charger (for BP-L60/L90) BC-L100CE AC Power Adaptor CMA-8ACE AC Power Adaptor AC-550CE Power Supply Cable (for CMA-8ACE) CCQX-3 Camera Adaptor (for BVP series) CA-514

Specifications

General

Type:	Dockable recorder unit
Power requirements:	DC12V, +5/-1V
Power consumption:	12W (10W in recording mode w/DXC-D30P)
Operating temperature:	0˚C to 40˚C (32˚F to 104˚F)
Storage temperature:	–20˚C to 60˚C (–4˚F to 140˚F)
Operating humidity:	Less than 85%
Storage humidity:	Less than 90%
Mass:	2.85 kg (6 lb 4 oz) (including NP-1B Battery)
Dimensions:	118 (W) × 185 (H) × 210 (D) mm (4¾ × 7⅜ × 8⅜ inches)
Tape speed:	28.221 mm/s
Recording/Playback time:	
Standard size	More than 184min. w/PDV-184ME/184N
Mini size	More than 40min. w/PDVM-40ME/40N
Fast forward/Rewind time:	
Standard size	Less than 12min. w/PDV-184ME/184N
Mini size	Less than 3min. w/PDVM-40ME/40N
Continuous recording time:	Approx. 60min. w/NP-1B (DSR-1P+DXC-D30P)

Video Performance

Band width:	
Luminance	25Hz ~ 5.5MHz +1.0/–2.0dB 5.75MHz +0/-3.0dB (Typical measurement)
Chrominance	25Hz ~ 2.0MHz +1.0/–2.0dB
S/N ratio:	More than 55dB
K-factor (K2T, KPB):	Less than 2.0%
Y/C delay:	Less than 30ns

Audio Performance

Frequency response:	
2CH mode (48kHz/16-bit)	20Hz ~ 20kHz +0.5/–1.0dB
4CH mode (32kHz/12-bit)	20Hz ~ 14.5kHz +0.5/–1.0dB
Dynamic range:	More than 80dB
Distortion (THD+N):	Less than 0.08%

Signal Inputs

GEN LOCK VIDEO IN (BNC):	1.0Vp-p, 75Ω
EXT AUDIO IN CH-1/2 (XLR 3-pin female):	–60dBu, 3kΩ/+4dBu, 10kΩ
TIME CODE IN (BNC):	0.5Vp-p to 18Vp-p, 10kΩ

Signal Outputs

VIDEO OUT (BNC):	1.0Vp-p, 75Ω
S-VIDEO (DIN 4-pin):	Y : 1.0Vp-p, 75Ω, sync negative C : 0.3Vp-p, 75Ω
AUDIO OUT CH-1/2 (RCA pin):	–10dBu, 47kΩ
TIME CODE OUT (BNC):	1.0Vp-p, 75Ω

Others

ANALOGUE I/F:	Pro 50-pin (1)
DIGITAL I/F:	Pro 76-pin Digital (1)
DC 12V:	XLR 4-pin male (at rear) (1)
DC OUT:	4-pin (1)
EARPHONE OUT:	Stereo mini jack (1)

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* The specifications of "Video/Audio performance" were measured by playing back material on the DSR-85P (via analogue component out) that had been recorded on the DSR-1P.

DSR-70P

Portable Editing Recorder

•Superb picture quality in the DVCAM digital component recording format •PCM(Pulse Code Modulation) digital audio recording for both two channel (48 kHz/16-bit) and four channel (32 kHz/12-bit) modes (selectable) •Consumer DV playback capability without need for a special adaptor •Long recording time; up to 184 minutes with a standard cassette and 40 minutes with a mini cassette •Compact, all-in-one package including a 6.4-inch VGA LCD monitor, a full cut-editing controller with a Jog/Shuttle dial and an audio speaker •VTR-to-VTR editing as a double deck editor by docking two DSR-70P units or a DSR-70P and a DNW-A25P Betacam SX™ portable editing recorder •Two-way power supply system for operation on either AC or DC power •Two-camera switching recording (when using optional DSBK-180 Dual Video Input Board) •Sequential recording in the double deck configuration •Parallel-run recording to make two docked DSR-70P units record simultaneously •ClipLink operation: cue up to Mark In/Cue address, change of Mark In/Out points, change of OK/NG status and creation of new Mark In/Out points •Audio MIX/SWAP recording •Versatile digital interfaces(options): SDTI(QSDI)*1, SDI and i.LINK*2 (DV In/Out) •Extensive analogue interfaces: composite, component (option) and S-Video •Frame accurate editing capability •RS-422A remote control interface •Built-in EBU time code generator/reader •Process control for stabilizing video signals •High-speed picture search over a range of 32 times normal speed, in both forward and reverse •Digital slow function over a range of 0 to 0.5 times normal speed, in both forward and reverse •Jog audio over a range of 1/30 to 1 times normal speed, in both forward and reverse •Full tape dubbing with ClipLink Log Data •16:9 / 4:3 switchable

*1 SDTI(Serial Data Transport Interface) is defined as SMPTE 305M. SDTI(QSDI) is the DV signal interface which conforms to the SDTI standard.
*2 i.LINK stands for IEEE1394-1995 standards and their revisions. i is the logo for products that implement i.LINK.

Supplied accessories: Carrying Belt (1)
Operation Manual (1)
Connector Cap ((1) / per interface)

Optional accessories: i.LINK/DV Input/Output Board DSBK-140
SDTI(QSDI) Input/Output Board DSBK-150
SDI Input/Output Board DSBK-160
Analogue Component Input/Output Board DSBK-170
Dual Video Input Board DSBK-180P
Rechargeable Lithium-ion Battery BP-L60A/L90A
Battery Charger for BP-L60A/L90A BC-L50
Battery Charger for BP-L60A/L90A BC-L100CE
AC Adaptor AC-DN2A
AC Adaptor AC-550CE
AC Adapror CMA-8ACE
Remote Control Cable RCC-5G/10G/30G
Docking Kit BKNW-225
Carrying Case LC-DN220

SPECIFICATIONS

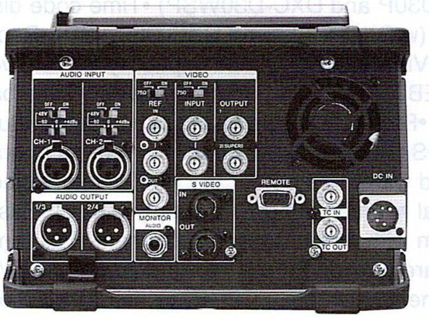
GENERAL

Power requirements: DC 12 V
Power consumption: 46 W (without options)
Operating temperature: 0 °C to 40 °C (32 °F to 104 °F)
Storage temperature: -20 °C to 60 °C (-4 °F to 140 °F)
Operating humidity: Less than 80 %
Storage humidity: Less than 90 %
Mass: 5.8 kg (12 lb 12 oz)
Dimensions: 211 (W) × 149 (H) × 443 (D) mm
(8 ⅜ × 5 ⅞ × 17 ½ inches)
Tape speed: 28.221 mm/s
Recording/Playback time:
Standard size: More than 184 min. with PDV-184ME/184N
Mini size: More than 40 min. with PDVM-40ME/40N
Fast forward/Rewind time:
Standard size: Less than 3 min. with PDV-184ME/184N
Mini size: Less than 1 min. with PDVM-40ME/40N
Search speed: x32, forward and reverse

Signal Inputs

Video (ANALOGUE)

Ref. Video (BNC (2), loop-through connection):
Composite, 1.0 Vp-p, 75 Ω, sync negative
Video (BNC (2), loop-through connection):
Composite, 1.0 Vp-p, 75 Ω, sync negative
Component (BNC (3))*1: Y: 1.0 Vp-p, 75 Ω, sync negative
R-Y: 0.7 Vp-p, 75 Ω (100 %)
B-Y: 0.7 Vp-p, 75 Ω (100 %)
S-Video (DIN 4-pin (1)): Y: 1.0 Vp-p, 75 Ω, sync negative
C: 0.3 Vp-p, 75 Ω (at burst level)



(without optional interface boards)

Video (DIGITAL)

i.LINK (DV In/Out) (6-pin (1))*2:
IEEE1394-based
SDTI(QSDI) (BNC (1))*3: Conforms to SDTI (270 Mbps), SMPTE305M
SDI (BNC (1))*4: Conforms to Serial Digital Interface (270 Mbps), ITU-R BT.656

Audio (ANALOGUE)

Audio (CH-1,2): XLR 3-pin female (2)

Signal Outputs

Video (ANALOGUE)

Ref. Video (BNC (1)): 0.3 Vp-p, 75 Ω, sync negative
Video 1/2 (SUPER) (BNC (2)):
Composite, 1.0 Vp-p, 75 Ω, sync negative
Component (BNC (3))*1: Y: 1.0 Vp-p, 75 Ω, sync negative
R-Y: 0.7 Vp-p, 75 Ω (100 %)
B-Y: 0.7 Vp-p, 75 Ω (100 %)
S-Video (DIN 4-pin (1)): Y: 1.0 Vp-p, 75 Ω, sync negative
C: 0.3 Vp-p, 75 Ω (at burst level)

Video (DIGITAL)

i.LINK (DV In/Out) (6-pin (1))*2, *5:
IEEE1394-based
SDTI(QSDI) (BNC (1))*3: Conforms to SDTI (270 Mbps), SMPTE305M
SDI (BNC (2))*4: Conforms to Serial Digital Interface (270 Mbps), ITU-R BT.656

Audio (ANALOGUE)

Audio (CH-1,2 or CH-3,4): XLR 3-pin female (2)
Audio monitor (R/L): RCA phono jack (1)
Headphones: JM-60 stereo phone jack (1)

Time Code

Time code input: BNC (1)
Time code output: BNC (1)

LCD

LCD display (1) 6.4-inch VGA, 640 (H) x 480 (V)

Speaker

Built-in speaker (1) Monaural

Remote

RS-422A D-sub 9-pin (1)

Others

DC 12 V input: XLR 4-pin (1)

*1 Using optional DSBK-170 Analogue Component Input/Output Board
*2 Using optional DSBK-140 (i.LINK/DV Input/Output Board)
*3 Using optional DSBK-150 (SDTI(QSDI) Input/Output Board)
*4 Using an optional DSBK-160 (SDI Input/Output Board)
*5 Shared with input connector
note: Optional interface boards (DSBK-140/150/160/170) cannot be used in combination with each other. However, these boards can be used together with the optional DSBK-180P Dual Video Input Board.

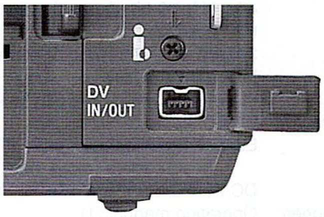
DSR-V10P

Video Walkman® Recorder

•Superb picture quality in the DVCAM digital component recording format •PCM (Pulse Code Modulation) digital audio recording for both two channel (48 kHz/16-bit) and four channel (32 kHz/12-bit) modes (selectable) •Playback capability of consumer DV recorded tapes (SP mode only) without need for a special adaptor •40 minutes recording time with a mini cassette*1 •Compact and lightweight: 970 g (2 lb 3 oz) without battery and tape •Built-in 5.5-inch LCD monitor •InfoLITHIUM™ system; Lithium-ion battery power system which shows the amount of power remaining in the battery, with an accuracy of one minute •i.LINK*2 (DV In/Out) interface based on the IEEE1394 standard •LANC interface for simple editing with a LANC-based recorder or editing system •Auto repeat function •Duplication mode with original time code •Assemble editing with up to 99 events x four programmes by using the optional DSRM-E1P Edit Adaptor

*1 The DSR-V10P accepts only mini DVCAM and DV cassettes.
*2 i.LINK stands for IEEE1394-1995 standards and their revisions. ℹ is the logo for products that implement i.LINK.

SONY
DVCAM
DISPLAY
AUDIO DUB
TC RESET
REC
SLOW
PAUSE
POWER
AUTO REPEAT
MENU
PLAY
REW
STOP
FF
LCD BRIGHT
VOLUME
EJECT
PUSH



Supplied Accessories:	AC-V700 AC Adaptor/Charger
	Carrying Belt
	Operating instruction manual
	i.LINK (DV) Cable
Optional Accessories:	DSRM-E1P
	CVX-V1P
	CVX-V3P
	AC-V700 AC Adaptor/Charger
	VMC-IL4415 i.LINK Cable
	VMC-IL4435 i.LINK Cable
	VMC-IL4615 i.LINK Cable
	VMC-IL4635 i.LINK Cable

Specifications

GENERAL

Video signal system:	CCIR standard, PAL colour
Power requirements:	DC: 7.2 V (battery operation) DC: 8.4 V (AC adaptor operation)
Power consumption:	11.5 W (with LCD panel ON)
Operating temperature:	0 °C~40 °C (32 °F~104 °F)
Storage temperature:	-20 °C~60 °C (-4 °F~140 °F)
Tape speed:	28.2 mm/sec. (DVCAM mode)
LCD screen:	5.5-inch
Mass:	970 g (2 lb 3 oz) (without a tape and battery)
Dimensions:	148 (W) × 62 (H) × 135 (D) mm (5 13/16 × 2 7/16 × 5 5/16 inches)

VIDEO

Video Input/Output:
Composite (RCA phono jack (1)):
1 Vp-p, 75 Ω, unbalanced, sync negative
S-Video (mini-DIN 4-pin (1)):
Y : 1Vp-p, 75 Ω, unbalanced, sync negative
C : 300 mVp-p (subcarrier burst), 75 Ω, unbalanced
Digital Input/Output:
i.LINK(DV In/Out) 4-pin jack (1), IEEE1394

AUDIO

Audio signals:	Recording:	48 kHz/16-bit, 32 kHz/12-bit,
	Playback:	48 kHz/16-bit, 32 kHz/12-bit, 32 kHz/16-bit, 44.1 kHz/16-bit
Audio Input/Output:	RCA phono jack (2) (L, R): -7.5 dBs, (0 dBu=0.775 Vrms)	

OTHER CONNECTORS

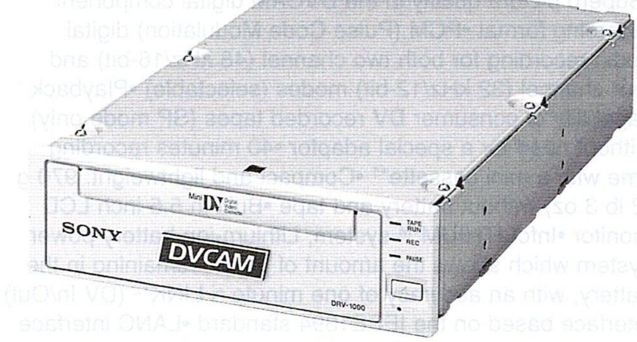
LANC:	Stereo mini-mini jack
Headphone:	Stereo mini jack 8Ω
Camera/Editor connector:	20-pin

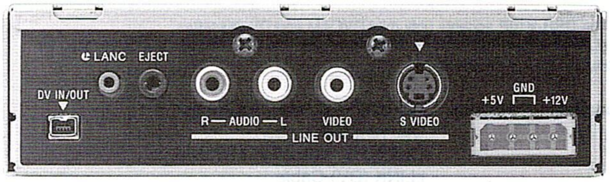
DRV-1000P

DVCAM Drive

•DVCAM recording/playback and DV playback (SP mode) capability* •Designed to fit directly into a standard PC 5.25-inch disk drive bay •i.LINK (DV In/Out) interface based on the IEEE1394 standard •LANC interface for simple editing with a LANC-based recorder or editing system •Analogue video and audio outputs •DC power operation

*The DRV-1000P accepts only mini DVCAM and DV cassettes.





SPECIFICATIONS

GENERAL

Mass:	Approx. 1.4 kg (3 lb 1 oz)
Dimensions:	149.2 (W) × 42.8 (H) × 225 (D) mm (5.87 × 1.69 × 8.86) inches
Maximum Dimensions (unload):	149.2 (W) × 68.0 (H) × 305 (D) mm
Power Requirement:	+5V: 5A (Max) /700mA (Stop) +12V: 0.8A (Max) /130mA (loading/unloading)
Power Consumption:	+5V: 25VA (Max) +12V: 9.6VA (Max)
Operating Temperature:	5 °C ~ 40 °C (41 °F ~ 104 °F)
Storage Temperature:	-20 °C ~ 60 °C (-4 °F ~ 140 °F)
Tape Speed:	28.2mm/s. (DVCAM mode)

VIDEO

Video Signal:	CCIR standards, PAL colour
Video Output:	Composite (RCA pin): 1Vp-p, 75Ω, unbalanced, sync negative S-video (mini-DIN 4-pin): Y: 1Vp-p, 75Ω, unbalanced, sync negative C: 300mVp-p (subcarrier burst), 75Ω, unbalanced

AUDIO

Audio Signals:	48 kHz/16-bit, 32kHz/12-bit, 32 kHz/16-bit 44.1 kHz/16-bit (depending on input signals)
Output:	PIN jacks (2) (L, R)
Output Level:	327mV with 47kΩ load or more Impedance: 2.2kΩ
Digital IN/OUT:	i.LNIK (DV IN/OUT), IEEE1394 based, 4-pin (1)
Other Connectors:	LANC: stereo mini-mini jack EJECT: monaural mini jack, TTL input low active (more than 100ms) DC IN: PC-standard, +5V/12V/GND
Supplied Accessories:	Operation manual (1) DV cable (4p - 4p, 50 cm) Stereo AV cable (1) S video cable (1) Mounting Screw (4)

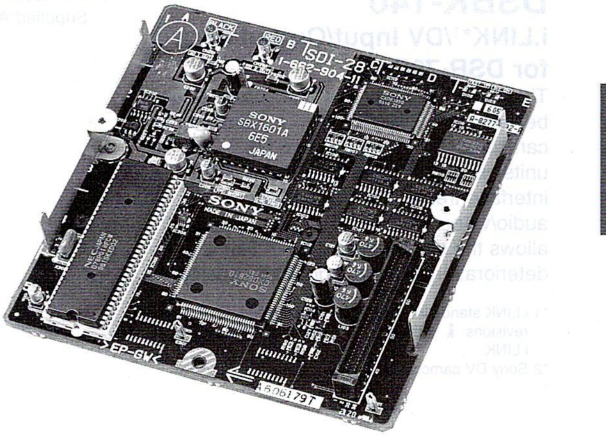
2-2 DVCAM VTR accessories

DSBK-100P

SDI Output Board for DSR-60P

- When installed in the DSR-60P, this board enables digital video and audio signals in the D1 format to be output to other SDI equipped devices such as Digital Betacam
- Conforms to Serial Digital Interface (270Mbps), ITU-R BT.656

Connector: Output : BNC (2)

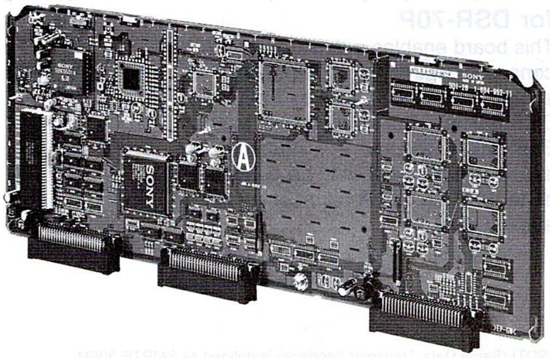


DSBK-110P

QSDI Output Board for DSR-60P

- When installed in the DSR-60P, this board enables QSDI-format digital video, audio and time code signals to be transferred to other QSDI equipped devices such as the DSR-80P, DSR-85P or EditStation
- Conforms to QSDI format (270Mbps)

Connector: Output : BNC (1)

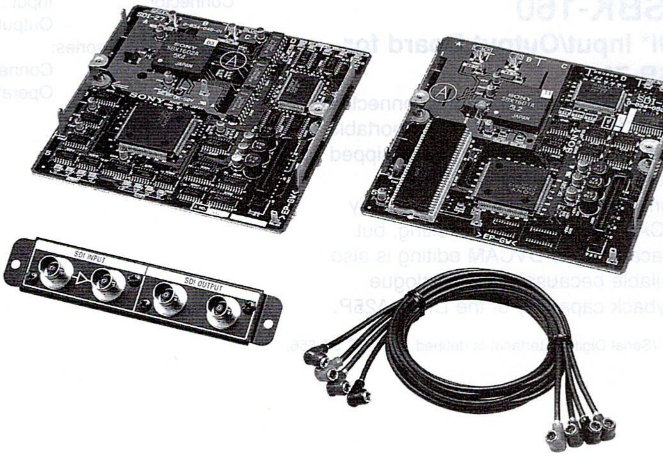


DSBK-120P

SDI Input/Output Board for DSR-80P and DSR-85P

- When installed in the DSR-80P or DSR-85P, this board enables digital video and audio signals in the D1 format to be input to the unit and output from other SDI equipped devices such as Digital Betacam
- Conforms to Serial Digital Interface (270Mbps), ITU-R BT.656

Connector:
Input : BNC (2)
Output : BNC (2)

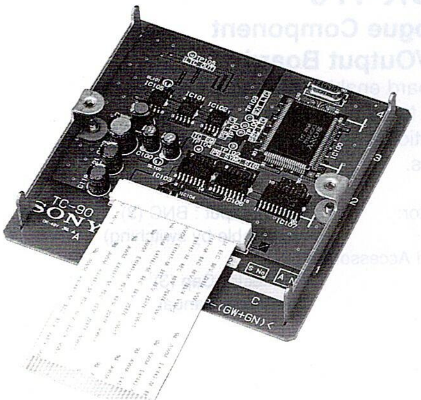


DSBK-130P

Time Code Input/Output Board for DSR-60P, DSR-80P and DSR-85P

- When installed in the DSR-60P, DSR-80P or DSR-85P, this board enables EBU-format time code (LTC) to be input to the unit and output from other equipment

Connector:
Input : BNC (1)
Output : BNC (1)

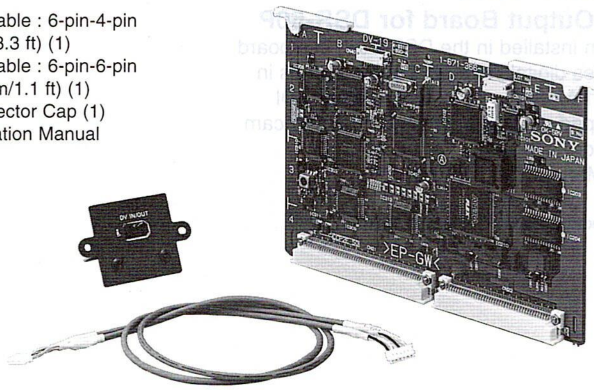


DSBK-140

i.LINK*[1]/DV Input/Output Board for DSR-70P

This board enables frame accurate editing between the DSR-70P and a consumer DV camcorder*[2] or between two DSR-70P units via i.LINK interface. This i.LINK interface treats compressed DV audio/video and control signals, which allows the single cable connection with no deterioration of video and audio quality.

Connector: Input/Output : 6-pin (1)
Supplied Accessories:
DV Cable : 6-pin-4-pin (1 m/3.3 ft) (1)
DV Cable : 6-pin-6-pin (35 cm/1.1 ft) (1)
Connector Cap (1)
Operation Manual



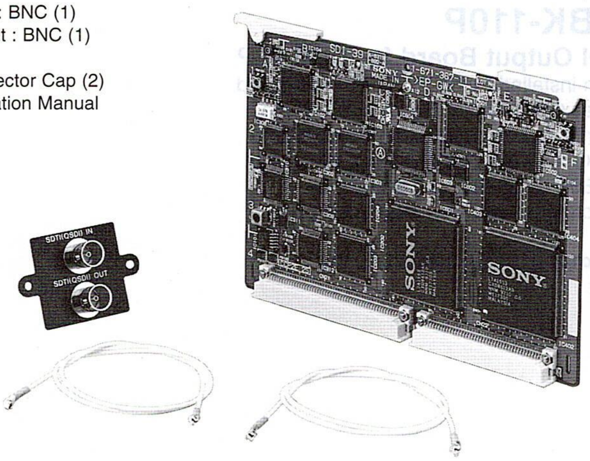
*1 i.LINK stands for IEEE1394-1995 standards and their revisions. i is the logo for products that implement i.LINK.
*2 Sony DV camcorders only

DSBK-150

SDTI*(QSDI) Input/Output Board for DSR-70P

This board enables a direct digital connection with other SDTI(QSDI) equipped machines such as the DSR-85P/80P/60P DVCAM VTRs and EditStation systems. This interface also allows source material to be dubbed and edited with no deterioration of video and audio quality.

Connector: Input : BNC (1)
Output : BNC (1)
Supplied Accessories:
Connector Cap (2)
Operation Manual



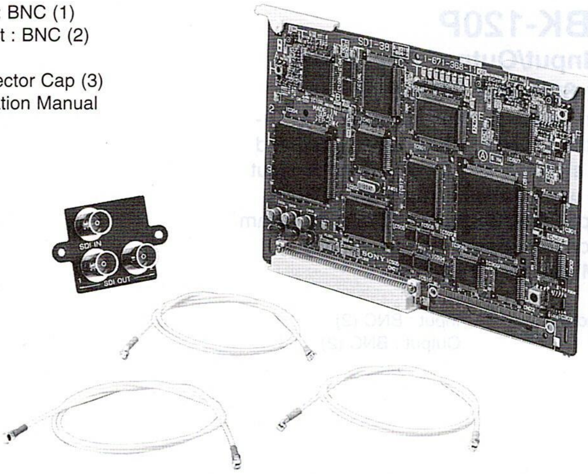
*SDTI (Serial Data Transport Interface) is defined as SMPTE 305M.
SDTI (QSDI) is the DV signal interface which conforms to the SDTI standard.

DSBK-160

SDI* Input/Output Board for DSR-70P

This board enables a digital connection with a DNW-A25 Betacam SX portable editing recorder or other SDI-equipped machines. When the DSR-70P is connected with DNW-A25P, not only DVCAM-to-Betacam SX editing, but Betacam SP-to-DVCAM editing is also available because of the analogue playback capability of the DNW-A25P.

Connector: Input : BNC (1)
Output : BNC (2)
Supplied Accessories:
Connector Cap (3)
Operation Manual



*SDI (Serial Digital Interface) is defined as ITU-R BT.656.

DSBK-170

Analogue Component Input/Output Board

This board enables analogue component signals to be used to work with the conventional analogue component editing systems.

Connector: Input/Output : BNC (3) (selectable by switching)
Supplied Accessories:
Connector Cap (3)
Operation Manual

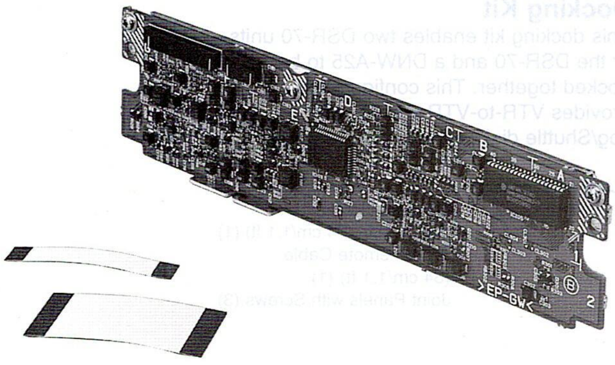
Y
IN
OUT
R-Y
B-Y

DSBK-180P

Dual Video Input Board

This board enables two cameras to be connected to the DSR-70P via analogue composite with composite signal. The output of either one is selected to be recorded.

Supplied Accessory: Operation Manual



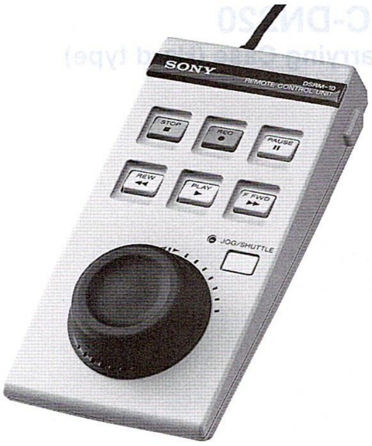
DSRM-10

Remote Control Unit

•Designed to remotely control the DVCAM VTRs (DSR-85P/DSR-80P/ DSR-60P), UVW VTRs (UVW-1800P/ UVW-1600P/ UVW-1200P) and S-VHS VTRs (SVO-9620/SVP-9020) •Provides wired remote control operation for STOP/REC/PAUSE/REW/PLAY/FFWD •JOG/SHUTTLE operation •Enables ±16 times normal speed in search operation

Specifications

Power requirements: DV 5V (supplied from the connected VTR)
Power consumption: 50 mW
Remote control: Stereo mini-plug (with attached cable, length 3 m (10ft))
Dimensions: 90 (w) × 46 (h) × 182 (d) mm ($3\frac{5}{8} \times 1\frac{13}{16} \times 7\frac{1}{4}$ inches)
Mass: Approx. 360 g (12oz)
Supplied accessory: Operating instructions



UVR-60P

TBC Remote controller

•Designed to control the Betacam SP studio VTR/DSR-85P/DSR-80P/DSR-60P/ EVO-9850P/SVO-5800P/SVP-5600P built-in TBCs •19-inch rack mountable: Can be installed individually with the supplied blank panel or with another UVR-60P

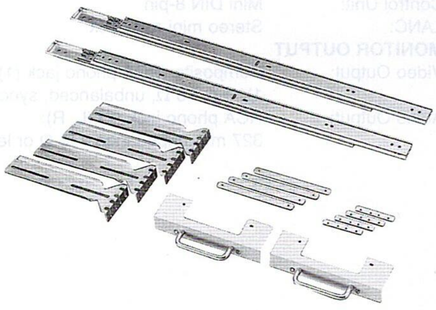
Power requirements:
DC 12V, 9V (supplied from VTR)
Power consumption:
840 mmW
Mass: 1.3 kg (2 lb 13 oz)
Dimension: 215 (W) × 44 (H) × 101 (D) mm ($8\frac{1}{2} \times 1\frac{3}{4} \times 4$ inches)

Supplied accessories:
Remote control cable (5 m)
Rack mount bracket
Blank panel
Screw
Operation manual

RMM-130

Rack Mount Kit

•Designed for use in mounting the DSR-85P, DSR-80P, and DSR-60P into 19-inch rack

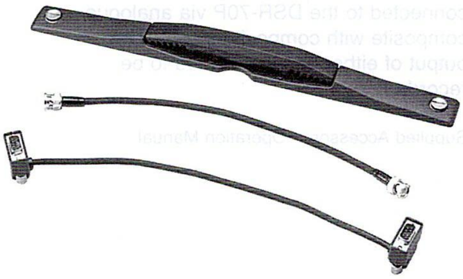


BKNW-225

Docking Kit

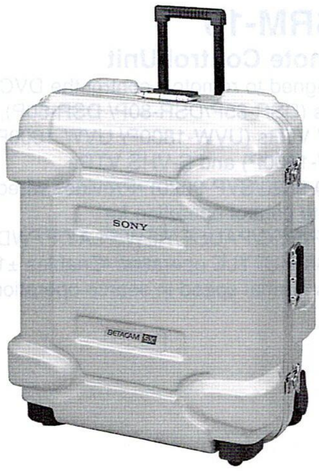
This docking kit enables two DSR-70 units or the DSR-70 and a DNW-A25 to be docked together. This configuration provides VTR-to-VTR editing with Jog/Shuttle dial operation.

Supplied Accessories:
Carrying Handle (1)
BNC Cable (34 cm/1.1 ft) (1)
9-pin Remote Cable (34 cm/1.1 ft) (1)
Joint Panels with Screws (3)



LC-DN220

Carrying Case (Hard type)



DSRM-E1P

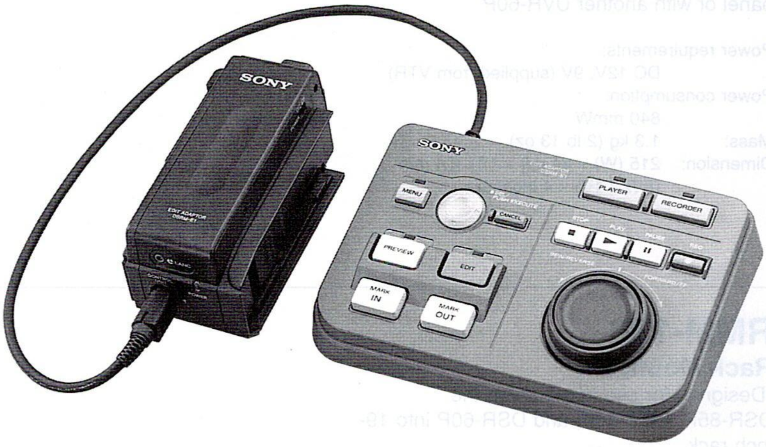
Edit Adaptor

•Direct connection to the DSR-V10P via a 20-pin connector •Controls LANC VTRs as players (DSR-PD1P/ DSR-20P/ DSR-30P) •Built-in Jog/Shuttle dial •Assemble editing with up to 99 events x 4 programmes

GENERAL
Power requirements: DC:7.2 V (supplied from the DSR-V10P)
DC:8.4 V (AC adaptor operation)
Power consumption: Approx. 1.8 W
Operating temperature: 0°C~40°C (32°F~104°F)
Storage temperature: -20°C~60°C (-4°F~140°F)
Mass: Main Unit: 160 g (5.6 oz)
Controller: 340 g (12 oz)
Dimensions:
Main Unit: 134.4 (W) × 69.2 (H) × 60.6 (D) mm (5 3⁄8 × 2 3⁄4 × 2 1⁄2 inches)
Controller: 128.1 (W) × 184 (H) × 42 (D) mm (5 1⁄8 × 7 1⁄4 × 1 11⁄16 inches)

CONNECTORS
DSR-V10P: 20-pin
Control Unit: Mini DIN 8-pin
LANC: Stereo mini-mini jack

MONITOR OUTPUT
Video Output: Composite (RCA phono jack (1)): 1V p-p, 75 Ω, unbalanced, sync negative
Audio Output: RCA phono jack (2) (L, R): 327 mV, impedance 470 Ω or less



CVX-V1P

Colour Video Camera

•Thumb-sized and lightweight (Camera head: 25 g, CCU: 135 g) •1/4-inch CCD Camera (470k pixels) •Directly attached to the Video Walkman 20-pin connector (via the supplied Video Walkman Attachment) •F1.8/f=3.9mm lens with manual focus/iris •Cable length : 2m

Supplied Accessories:	Video Walkman Attachment Unit Operating Instruction Manual

GENERAL

Video signal:	CCIR standards, PAL colour
Power requirements:	DC: 7.2V (battery operation) DC: 8.4V (AC adaptor operation)
Power consumption:	1.8 W
Operating temperature:	0°C~40°C (32°F~104°F)
Storage temperature:	-20°C~60°C (-4°F~140°F)
Mass:	Camera Unit: 25 g (0.85 oz) CCU: 135 g (4.8 oz) (without a battery)
Dimensions:	Camera head: 22 (W) × 18 (H) × 60 (D) mm (14/16 × 23/32 × 2 3/8 inches) CCU: 35 (W) × 110 (H) × 60 (D) mm (1 7/16 × 4 3/8 × 2 3/8 inches)

CAMERA

Image device:	1/4 inch Interline Transfer CCD
Picture elements:	Total: 470k Effective: 440k
Lens:	F1.8
Focal length:	f=3.9mm (35mm conversion : 38mm)
Minimum illumination:	2 lux
Gain selection:	AUTO/Hold
White balance:	AUTO/Hold
Shutter speed:	AUTO,1/50,1/120,1/250,1/500,1/2000,1/10000

VIDEO

Video Output (on CCU):
Composite (RCA pin(1))
1 V p-p, 75 Ω, unbalanced, sync negative
S-Video (Mini DIN 4-pin(1))
Y : 1 Vp-p, 75Ω, unbalanced, sync negative
C : 300 m Vp-p (subcarrier burst), 75Ω, unbalanced

AUDIO

Audio Input/Output (RCA phono jack (2)(L, R)):
-7.5 dBs, (0 dBs=0.775 Vrms)

OTHER CONNECTORS (on CCU)

External mic IN:	Stereo mini-mini jack(1)
Multi connector:	20 pin(1)
Battery connector	

CVX-V3P

Colour Video Camera

•Small and lightweight (Camera head: 75 g, CCU: 135 g) •1/4-inch CCD camera (470k pixels) • x3 Zoom lens •Built-in stereo microphone •Splash-proof camera head •Directly attached to the Video Walkman 20-pin connector (via the supplied Video Walkman Attachment) •Cable length : 2m

Supplied Accessories:	Video Walkman Attachment Unit Operating Instruction Manual

GENERAL

Video signal system:	CCIR standards, PAL colour
Power requirements:	DC: 7.2 V (battery operation) DC: 8.4 V (AC adaptor operation)
Power consumption:	1.8 W
Operating temperature:	0°C ~ 40°C (32°F ~ 104°F)
Storage temperature:	-20°C ~ 60°C (-4°F ~ 140°F)
Mass:	Camera head: 75 g (2.6 oz) CCU: 135 g (4.8 oz)(without a battery)
Dimensions:	Camera head: 36 (W) x 40 (H) x 70 (D) mm (1 7/16 × 1 5/8 × 2 7/8 inches) CCU: 35 (W) × 110 (H) × 60 (D) mm (1 7/16 × 4 3/8 × 2 3/8 inches)

CAMERA

Image device:	1/4-inch Interline Transfer CCD
Picture elements:	Total: 470k Effective: 440k
Lens	F 2.8~4
Focal length:	f=3.5 mm ~10.5 mm
(35 mm conversion : 35mm ~ 105mm)	
Minimum illumination:	5 lux
Gain selection:	AUTO
White balance:	AUTO

VIDEO

Video Output (on CCU):
Composite (RCA pin(1))
1 V p-p, 75 Ω, unbalanced, sync negative
S-Video (Mini DIN 4-pin(1))
Y : 1 Vp-p, 75 Ω, unbalanced, sync negative
C : 300 m Vp-p (subcarrier burst), 75 Ω, unbalanced

AUDIO

Audio Input/Output (RCA phono jack (2)(L, R)):
-7.5 dBs, (0 dBs=0.775 Vrms)

OTHER CONNECTORS (on CCU)

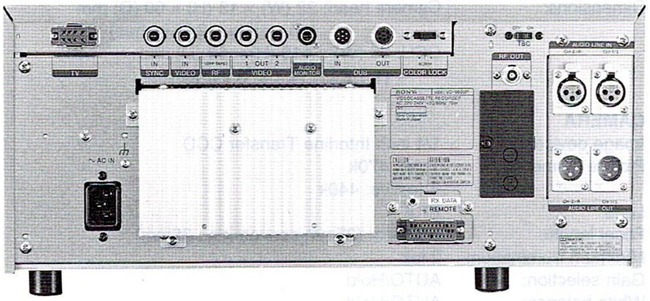
External mic IN:	Stereo mini-mini jack(1)
Multi connector:	20 pin(1)
Battery connector	

VO-9600P (PAL)

Recorder

*Production of this product has been discontinued. For details, please consult your nearest Sony office.

•Superior Performance (SP) Technology for excellent quality picture through multi-generation recording •SP/High Band/Low Band recording and playback capability •Dolby C-type Noise Reduction System for superior sound quality •BKU-701 Computer Interface Board (RS-232C) (optional) for external computer operation •FCG-700 Frame Code Generator (optional) for frame code recording •Frame Code Operation: random access and sophisticated program operation from the RX-707 optional Auto Search Control Unit or an external computer •Programmed operation with MARK IN A and MARK IN B •Timer operation for recording and playback operation using an external timer •33-pin REMOTE connector for remote operation from the RM-500/580 optional Remote Control Unit •Wired/wireless remote operation via the RM-770 optional Remote Control Unit •Search Dial for high speed picture search at STILL, 1/30, 1/10, 1/5, 1/2, 1, 2, 5 times normal speed in the forward and reverse directions •Audio dubbing on CH-1 for additional audio recording on the audio CH-1 •Audio XLR balanced connectors for connection with professional audio equipment •Connection to an external TBC •Connection to a TV receiver using the optional RF Modulator •19-inch Rack Mountable with the RMM-507



Supplied accessories:	Operation manual RF unit cover
Optional accessories:	Frame code generator FCG-700 Computer interface board BKU-701 Auto search control unit RX-707 Remote control unit RM-770 Remote control unit RM-500/580 Dubbing cable VDC-5A (5m) Colour RF kit RFK-660UCE/UF/CH Rack mount kit RMM-507

Specifications

General

Type:	Recorder
Video recording system:	Rotary 2 head helical scan
Luminance:	FM recording
Chrominance:	Converted subcarrier
Video signal system:	CCIR monochrome/PAL colour
Operating temperature:	5 to 40°C (41 to 104°F)
Power requirements:	AC 220 to 240V, 50/60Hz
Operating voltage:	AC 198 to 264V
Power consumption:	75W (with RM-580 and RFK-660)
Dimensions:	424 (W) × 192 (H) × 492 (D) mm ($16\frac{3}{4} \times 7\frac{5}{8} \times 19\frac{3}{8}$ inches)
Mass:	18 kg (39 lb 11 oz)

Video signal

Recording and Playback mode:	Low Band/High Band/SP mode
Input:	1.0Vp-p±0.3V, 75Ω, unbalanced
Output:	LINE: 1.0Vp-p±0.2V, 75Ω, unbalanced
Horizontal resolution:	
SP mode	300 lines (colour)
High Band mode	260 lines (colour)
Low Band mode	250 lines (colour)
S/N ratio (colour):	Better than 46dB
EXT sync input:	2.5V (2.0 to 5.0V)p-p, 75Ω, unbalanced, negative
RF OUT (OFF TAPE):	0.5Vp-p ±0.1V, 75Ω, unbalanced

Audio signal

Input:	MIC: –60dBu, at 3kΩ load, unbalanced LINE: –5dBu, at 10kΩ load, balanced
Output:	LINE: +4dBu, at 600Ω load, balanced HEADPHONE: –26 to –46dBu, at 8Ω load, unbalanced MONITOR: –5dBu, at 47kΩ load, unbalanced
Frequency response:	50Hz to 15kHz
S/N ratio:	
SP mode (Dolby off)	Better than 52dB (3% distortion)
Conventional mode	Better than 50dB (3% distortion)
RF output	With optional RF kit

Tape transport

Tape speed:	9.53cm/s (3.8ips)
Wow and flutter:	±0.23%p-p (DIN)
REC or PB time:	Max. 60min
Videocassette:	KSP/KSP-S/KCA-BRS/KCS-BRS

Technical features

Frame code operation:	YES (with BKU-701)
Remote control:	YES (33-pin and simple)
Electronic editing:	NO
Time code editing:	NO
Time code capability:	NO
High speed picture search:	YES (1/30, 1/10, 1/5, 1, 2, 5)
Jog search:	NO
Noiseless pause/still:	YES
Dolby noise reduction:	YES (C-Type)
Audio dubbing:	YES (CH-1)
EXT sync lock (vertical):	YES
Programmed operation:	YES (CTL and frame code counter with BKU-701)
Timer operation:	YES (with an optional timer)
RF unit adaptable:	YES

VO-9600P
RECORDING MODE DETECTION SYSTEM

DUB IN CONNECTOR

VIDEOCASSETTE	INPUT SIGNAL	RECORDING MODE
KSP series	SP	SP
KCA/KCS series		HIGH BAND
KSP series	HIGH BAND	SP
KCA/KCS series		HIGH BAND
KSP series	LOW BAND	LOW BAND
KCA/KCS series		LOW BAND

VIDEO IN CONNECTOR

VIDEOCASSETTE	REC MODE POSITION	RECORDING MODE
KSP series	SP/HIGH	SP
	LOW	LOW BAND
KCA/KCS series	SP/HIGH	HIGH BAND
	LOW	LOW BAND

VO-9600P/VP-9000P
PLAYBACK MODE DETECTION SYSTEM

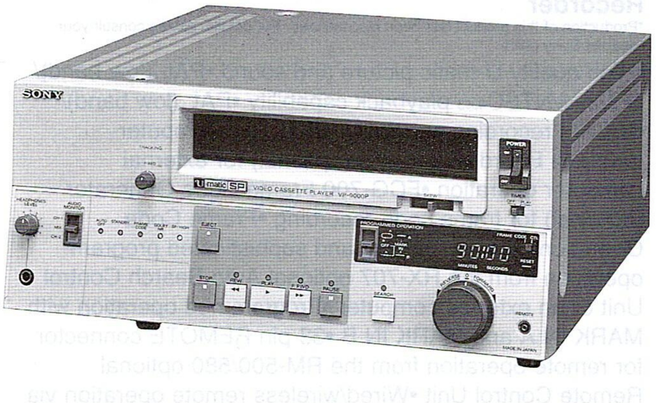
VIDEOCASSETTE	RECORDING SIGNAL	PLAYBACK MODE
KSP series	SP	SP
	HIGH	HIGH
	LOW	LOW
KCA/KCS series	HIGH	HIGH
	LOW	LOW

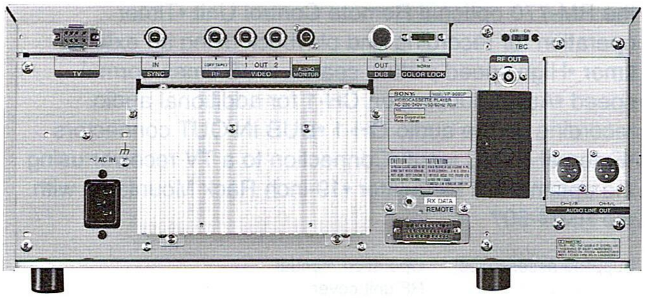
VP-9000P (PAL)

Player

*Production of this product has been discontinued. For details, please consult your nearest Sony office.

•Superior Performance (SP) Technology for excellent quality picture through multi-generation recording •SP/High Band/Low Band playback capability •Dolby C-type Noise Reduction System for superior sound quality •BKU-701 Computer Interface Board (RS-232C) (optional) for external computer operation •Frame Code Operation: random access and sophisticated program operation from the RX-707 optional Auto Search Control Unit or an external computer •Programmed operation with MARK IN A and MARK IN B •Timer operation for playback using an external timer •33-pin REMOTE connector for remote operation from the RM-500/580 optional Remote Control Unit •Wired/wireless remote operation via the RM-770 optional Remote Control Unit •Search Dial for high speed picture search at STILL, 1/30, 1/10, 1/5, 1/2, 1, 2, 5 times normal speed in the forward and reverse directions •Audio XLR balanced connector for connection with professional audio equipment •Connection to an external TBC •Connection to a TV receiver using the optional RF Modulator •19-inch Rack Mountable with the RMM-507





Supplied accessories:	Operation manual RF unit cover
Optional accessories:	Computer interface board BKU-701 Auto search control unit RX-707 Remote control unit RM-770 Remote control unit RM-500/580 Dubbing cable VDC-5A (5 m) Colour RF kit RFK-660UCE/UF/CH Rack mount kit RMM-507

Specifications

General

Type:	Player
Video signal system:	CCIR monochrome/PAL colour
Operating temperature:	5 to 40°C (41 to 104°F)
Power requirements:	AC 220 to 240V, 50/60Hz
Operating voltage:	AC 198 to 264V
Power consumption:	70W (with RM-580 and RFK-660)
Dimensions:	424 (W) × 192 (H) × 492 (D) mm (16$^3/_4$ × 7$^5/_8$ × 19$^3/_8$ inches)
Mass:	18 kg (39 lb 11 oz)

Video signal

Playback mode:	Low Band/High Band/SP mode
Output:	LINE: 1.0Vp-p±0.2V, 75Ω, unbalanced
Horizontal resolution:	
SP mode	300 lines (colour)
High Band mode	260 lines (colour)
Low Band mode	250 lines (colour)
S/N ratio (colour):	Better than 46dB
EXT sync input:	2.5V (2.0 to 5.0V) p-p, 75Ω, unbalanced, negative
RF OUT (OFF TAPE):	0.5Vp-p ±0.1V, 75Ω, unbalanced

Audio signal

Output:	LINE:	+4dBu, at 600Ω load, balanced
	HEADPHONE:	–26 to –46dBu, at 8Ω load, unbalanced
	MONITOR:	–5dBu, at 47kΩ load, unbalanced
Frequency response:	50Hz to 15kHz	
S/N ratio:		
SP mode (Dolby off)	Better than 52dB (3% distortion)	
Conventional mode	Better than 50dB (3% distortion)	

RF output	With optional RF kit

Tape transport

Tape speed:	9.53cm/s (3.8ips)
Wow and flutter:	±0.23% p-p (DIN)
PB time:	Max. 60min
Videocassette:	KSP/KSP-S/KCA-BRS/KCS-BRS

Technical features

Frame code operation:	YES (with BKU-701)
Remote control:	YES (33-pin and simple)
Electronic editing:	NO
Time code editing:	NO
Time code capability:	NO
High speed picture search:	YES (1/30, 1/10, 1/5, 1, 2, 5)
Jog search:	NO
Noiseless pause/still:	YES
Dolby noise reduction:	YES (C-Type)
Audio dubbing:	NO
EXT sync lock (vertical):	YES
Programmed operation:	YES (CTL and frame code counter with BKU-701)
Timer operation:	YES (with an optional timer)
RF unit adaptable:	YES

SP IMPROVEMENTS

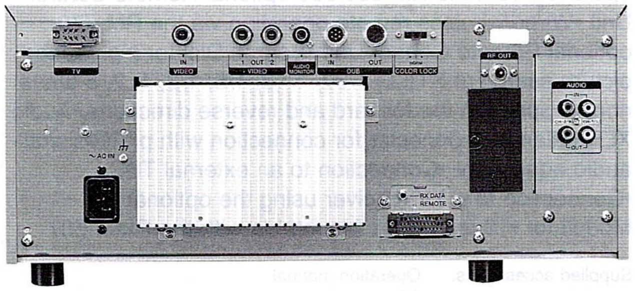
Videocassette	Recording U-matic	Playback U-matic	Luminance frequency response (resolution)	Luminance ringing	Chrominance ringing
KSP series	SP	SP	Very much improved	Very much improved	Very much improved
KSP series	SP	High Band	Much improved	Much improved	Improved
KSP series	High Band	SP	—	—	Improved
KSP series	High Band	High Band	—	—	—
KCA/KCS series	SP	SP	—	Much improved	Much improved
KCA/KCS series	SP	High Band	—	Improved	Improved
KCA/KCS series	High Band	SP	—	—	—
KCA/KCS series	High Band	High Band	—	—	—

VO-7630 (PAL/SECAM/NTSC4.43)

Recorder

*Production of this product has been discontinued. For details, please consult your nearest Sony office.

•High quality U-matic picture and sound •PAL (low band)/ SECAM/NTSC4.43 playback capability •PAL (low band)/ SECAM recording capability •BKU-701 Computer Interface Board (RS-232C) (optional) for external computer operation •FCG-700 Frame Code Generator (optional) for frame code recording •Frame Code Operation: random access and sophisticated program operation from the RX-707 optional Auto Search Control Unit or an external computer •Programmed operation with MARK IN A and MARK IN B •33-pin REMOTE connector for remote operation from the RM-500/580 optional Remote Control Unit •Wired/wireless remote operation via the RM-770 optional Remote Control Unit •Timer operation for recording and playback using an external timer •High speed picture search at ±5 times normal speed •Audio dubbing on CH-1 for additional audio recording on the audio CH-1 •DUB IN/OUT connectors •External SYNC input •Connection to a TV receiver using the optional RF Modulator •19-inch Rack Mountable with the RMM-507



Supplied accessories:	Operation manual RF unit cover
Optional accessories:	Frame code generator FCG-700 Computer interface board BKU-701 Auto search control unit RX-707 Remote control unit RM-770 Remote control unit RM-500/580 Colour RF kit RFK-660UCE/UF/CH Rack mount kit RMM-507

Specifications

General	
Type:	Recorder
Video recording system:	Rotary 2-head helical scan Luminance: FM recording Chrominance: Converted subcarrier
Video signal system:	CCIR/EIA monochrome PAL/SECAM/NTSC4.43 colour
Operating temperature:	5 to 40°C (41 to 104°F)
Power requirements:	AC 220 to 240V (100 to 120V: USA model), 50/60Hz
Operating voltage:	AC 198 to 264V
Power consumption:	65W (with RM-580 and RFK-660)
Dimensions:	424 (W) × 192 (H) × 492 (D) mm (16$^3/_4$ × 7$^5/_8$ × 19$^3/_8$ inches)
Mass:	17 kg (37 lb 8 oz)
Video signal	
Recording and Playback mode:	Low Band mode
Input:	1.0Vp-p $^{+1.0}_{-0.5}$V, 75Ω, unbalanced
Output:	LINE: 1.0Vp-p ±0.2V, 75Ω, unbalanced
Horizontal resolution:	250 lines (colour)
S/N ratio (colour):	Better than 46dB
Audio signal	
Input:	MIC: –60dBu, at 3kΩ load, unbalanced LINE: –10dBu, 47kΩ, unbalanced
Output:	LINE/MONITOR: –5dBu, at 47kΩ load, unbalanced
Frequency response:	50Hz to 15kHz
S/N ratio:	Better than 50dB (3% distortion)
RF output	With optional RF kit
Tape transport	
Tape speed:	9.53cm/s (3.8 ips)
Wow and flutter:	0.23% p-p (DIN)
REC or PB time:	Max. 60min
Videocassette:	KCA-BRS/KCS-BRS/KCA-XBR/KCS-XBR
Technical features	
Frame code operation:	YES (with BKU-701)
Remote control:	YES (33-pin and simple)
Electronic editing:	NO
Time code editing:	NO
Time code capability:	NO
High speed picture search:	YES (×5)
Jog search:	NO
Noiseless pause/still:	YES
Dolby noise reduction:	NO
Audio dubbing:	YES (CH-1)
EXT sync lock (vertical):	YES
Programmed operation:	YES (CTL and frame code counter with BKU-701)
Timer operation:	YES (with an optional timer)
RF unit adaptable:	YES (USA model: NO)

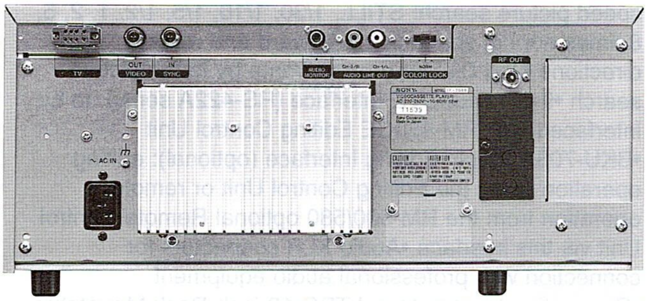
VP-7040 (PAL/SECAM/NTSC4.43)

Player

*Production of this product has been discontinued. For details, please consult your nearest Sony office.

•High quality U-matic picture and sound •PAL (low band)/ SECAM/NTSC4.43 playback capability •BKU-701 Computer Interface Board (RS-232C) (optional) for external computer operation •Frame Code Operation: random access and sophisticated program operation from the RX-707 optional Auto Search Control Unit or an external computer •Programmed operation with MARK IN A and MARK IN B •BKU-702 (optional) 33-pin REMOTE interface for remote operation from the RM-500/580 optional Remote Control Unit •Wired/wireless remote operation via the RM-770 optional Remote Control Unit •Timer operation for playback using an external timer •High speed picture search at ±5 times normal speed •DUB OUT connector •External SYNC input •Connection to a TV receiver using the optional RF Modulator •19-inch Rack Mountable with the RMM-507

SONY
U-matic
VIDEOCASSETTE PLAYER VP-7040
POWER



Supplied accessories:	Operation manual RF unit cover
Optional accessories:	33-pin interface board BKU-702 Computer interface board BKU-701 Frame code generator FCG-700 Computer interface board BKU-701 Auto search control unit RX-707 Remote control unit RM-770 Remote control unit RM-500/580 Colour RF kit RFK-660UCE/UF/CH Rack mount kit RMM-507

Specifications

General	
Type:	Player
Video signal system:	CCIR/EIA monochrome PAL/SECAM/NTSC4.43 colour
Operating temperature:	5 to 40°C (41 to 104°F)
Power requirements:	AC 220 to 240V (100 to 120V: USA model), 50/60Hz
Operating voltage:	AC 198 to 264V
Power consumption:	58W (with RM-580 and RFK-660)
Dimensions:	424 (W) × 192 (H) × 492 (D) mm ($16^3/_4 \times 7^5/_8 \times 19^3/_8$ inches)
Mass:	16 kg (35 lb 4 oz)
Video signal	
Playback mode:	Low Band mode
Output:	LINE: 1.0Vp-p ±0.2V, 75Ω, unbalanced
Horizontal resolution:	250 lines (colour)
S/N ratio (colour):	Better than 45dB
EXT sync input:	2.5V (1.0 to 5.0V) p-p, 75Ω, unbalanced, sync negative
Audio signal	
Output:	LINE/MONITOR: –5dBu, at 47kΩ load, unbalanced
Frequency response:	50Hz to 15kHz
S/N ratio:	Better than 50dB (3% distortion)
RF output	With optional RF kit
Tape transport	
Tape speed:	9.53cm/s (3.8 ips)
Wow and flutter:	0.23% p-p (DIN)
PB time:	Max. 60min
Videocassette:	KCA-BRS/KCS-BRS/KCA-XBR/KCS-XBR
Technical features	
Frame code operation:	YES (with BKU-701)
Remote control:	33-pin: YES (with BKU-702), Simple: YES
Electronic editing:	NO
Time code editing:	NO
Time code capability:	NO
High speed picture search:	YES (×5)
Jog search:	NO
Noiseless pause/still:	YES
Dolby noise reduction:	NO
Audio dubbing:	NO
EXT sync lock (vertical):	YES
Programmed operation:	YES (CTL and frame code counter with BKU-701)
Timer operation:	YES (with an optional timer)
RF unit adaptable:	YES (USA model: NO)

3-2 U-matic editing VTRs

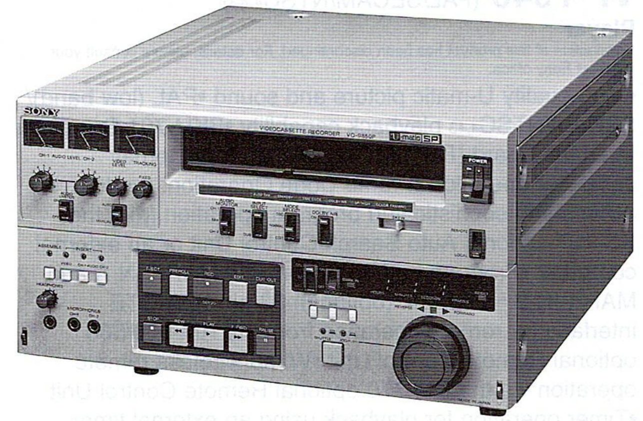
VO-9850P (PAL)

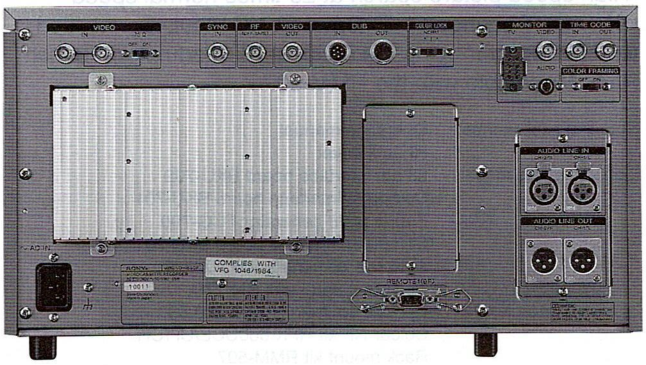
U-matic SP

Editing recorder

*Production of this product has been discontinued. For details, please consult your nearest Sony office.

•Superior Performance (SP) Technology for excellent quality picture through multi-generation recording •SP/High Band recording capability •SP/High Band/Low Band playback capability •Dolby C-type Noise Reduction System for superior sound quality •BKU-705 Time Code Generator/Reader or BKU-704 Time Code Reader (optional) for accurate time code editing •Built-in Editing Facility allows ASSEMBLE and INSERT editing (VIDEO, AUDIO, CH-1/CH-2) •Dial Menu Operation via search dial for user convenience: setting of time code (with the BKU-705), display of time code character on the monitor screen, setting preroll time, etc. •Shuttle Dial for high speed picture search: STILL, 1/30, 1/10, 1/5, 1/2, 1, 2, 5, 8 times normal speed in the forward and reverse directions •Jog Dial for precise frame by frame picture search •9-pin REMOTE Interface (RS-422A serial): to be interfaced with RM-450CE Editing Control Unit •BKU-703A 33-pin Editing Interface (optional): editing operation using the Editing Control Unit or remote operation from the RM-500/580 optional Remote Control Unit via this interface •Audio XLR connectors for connection with professional audio equipment •Connection to an external TBC•19-inch Rack Mountable with the RMM-501 Rack Mount Kit





Supplied accessories:	AC power cord Operation manual
Optional accessories:	33-pin editing interface BKU-703A Time code reader BKU-704 Time code generator/reader BKU-705 Editing control unit RM-450CE Rack mount kit RMM-501 9-pin remote cable RCC-5G/10G/30G Dubbing cable (5m) VDC-5A 33-pin remote cable RCC-5F

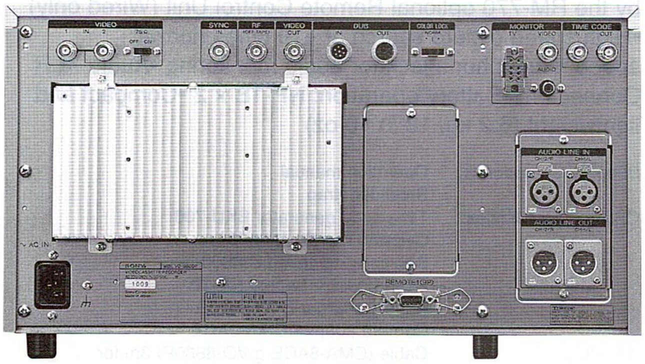
Specifications

General	
Type:	Editing Recorder
Video recording system:	Rotary 2 head helical scan Luminance: FM recording Chrominance: Converted subcarrier
Video signal system:	CCIR monochrome/PAL colour
Operating temperature:	5 to 40°C (41 to 104°F)
Power requirements:	AC 220 to 240V, 50/60Hz
Operating voltage:	AC 99 to 264V
Power consumption:	85W (with BKU-703, BKU-704 and RM-440)
Dimensions:	426 (W) × 238 (H) × 513 (D) mm ($16^{7}/_{8}$ × $9^{3}/_{8}$ × $20^{1}/_{4}$ inches)
Mass:	21.4 kg (47 lb 2 oz)
Video signal	
Recording and playback mode:	High band and SP mode Low band mode (playback only)
Input:	1.0Vp-p ±0.3V, sync negative 75Ω, unbalanced
Output:	1.0Vp-p ±0.2V, sync negative 75Ω, unbalanced
Horizontal resolution:	
SP mode	300 lines (colour)
High band mode	260 lines (colour)
Low band mode	250 lines (colour)
S/N ratio (colour):	Better than 46 dB
EXT sync input:	2.5V (2.0 to 5.0V) p-p, negative, 75Ω, unbalanced
RF OUT (OFF TAPE):	0.5V (0.3 to 1.0V) p-p, 75Ω, unbalanced
Audio signal	
Input:	MIC: –60dBu, 3kΩ, unbalanced LINE: +4dBu, 10kΩ, balanced
Output:	LINE: +4dBu, at 600Ω, balanced HEADPHONE: –26dBu to –46dBu, at 8Ω, unbalanced MONITOR: –5dBu at 47kΩ, unbalanced
Frequency response:	50Hz to 15kHz
S/N ratio:	
SP mode (Dolby off)	Better than 52dB (3% distortion)
Conventional mode	Better than 50dB (3% distortion)
Time code	
Input:	0dB ±6dB, 10kΩ, unbalanced (0dB=1.55Vp-p pulse)
Output:	0dB ±3dB, low impedance, unbalanced (0dB=1.55Vp-p pulse)
RF output	NO
Tape transport	
Tape speed:	9.53mm/s (3.8 ips)
Wow and flutter:	0.23% p-p DIN
REC or PB time:	Max. 60min
Videocassette:	KSP/KSP-S/KCA-BRS/KCS-BRS
Technical features	
Frame code operation:	NO
Remote control:	YES (9-pin and 33-pin)
Electronic editing:	YES
Time code editing:	YES (with BKU-704/705)
Time code capability:	YES (with BKU-704/705)
High speed picture search:	YES (1/30, 1/10, 1/5, 1/2, 1, 2, 5, 8)
Jog search:	YES
Noiseless pause/still:	YES
Dolby noise reduction:	YES (C-Type)
Audio dubbing:	YES (Insert editing CH-1/CH-2)
EXT sync lock (vertical):	YES
Programmed operation:	YES (CTL counter)
Timer operation:	NO
RF unit adaptable:	NO

VO-9800P (PAL)

Recorder (Editing player)

•Superior Performance (SP) Technology for excellent quality picture through multi-generation recording •SP/High Band recording capability •SP/High Band/Low Band playback capability •Dolby C-type Noise Reduction System for superior sound quality •BKU-704 Time Code Reader (optional) for accurate time code editing •Back-space Editing Capability for smooth transitions between scenes •Audio dubbing on CH-1 for additional audio recording on audio CH-1 •Dial Menu Operation via the search dial for user convenience: display of time code character on the monitor screen, setting preroll time, etc. •Jog/Shuttle Dial for high speed and precise picture search—Jog: frame by frame tape control, Shuttle: Still, 1/30, 1/10, 1/5, 1/2, 1, 2, 5, 8 times normal speed in the forward and reverse directions •9-pin REMOTE Interface (RS-422A serial): to be interfaced with RM-450CE Editing Control Unit •BKU-703A 33-pin Editing Interface (optional): editing operation using the RM-440 Editing Control Unit or remote operation from the RM-500/580 optional Remote Control Unit via this interface •Audio XLR connectors for connection with professional audio equipment •Connection to an external TBC •19-inch Rack Mountable with the RMM-501 Rack Mount Kit



Supplied accessories:	AC power cord Operational manual
Optional accessories:	33-pin editing interface BKU-703A Time code reader BKU-704 Editing control unit RM-450CE Rack mount kit RMM-501 9-pin remote cable RCC-5G/10G/30G Dubbing cable (5m) VDC-5A 33-pin remote cable RCC-5F

Specifications

General	
Type:	Recorder (Editing player)
Video recording system:	Rotary 2 head helical scan Luminance: FM recording Chrominance: Converted subcarrier
Video signal system:	CCIR monochrome/PAL colour
Operating temperature:	5 to 40°C (41 to 104°F)
Power requirements:	AC 220 to 240V, 50/60Hz
Operating voltage:	AC 99 to 264V
Power consumption:	85W (with BKU-703, BKU-704 and RM-440)
Dimensions:	426 (W) × 238 (H) × 513 (D) mm (16$^7/_8$ × 9$^3/_8$ × 20$^1/_4$ inches)
Mass:	21.4 kg (47 lb 2 oz)
Video signal	
Recording and playback mode:	High band and SP mode Low band mode (playback only)
Input:	1.0Vp-p ±0.3V, sync negative 75Ω, unbalanced
Output:	1.0Vp-p ±0.2V, sync negative 75Ω, unbalanced
Horizontal resolution:	
SP mode	300 lines (colour)
High band mode	260 lines (colour)
Low band mode	250 lines (colour)
S/N ratio (colour):	Better than 46dB
EXT sync input:	2.5V (2.0 to 5.0V) p-p, negative, 75Ω, unbalanced
RF OUT (OFF TAPE):	0.5V (0.3 to 1.0V) p-p, 75Ω, unbalanced
Audio signal	
Input:	MIC: –60dBu, 3kΩ, unbalanced LINE: +4dBu, 10kΩ, balanced
Output:	LINE: +4dBu, at 600Ω, balanced HEADPHONE: –26dBu to –46dBu, at 8Ω, unbalanced MONITOR: –5dBu at 47kΩ, unbalanced
Frequency response:	50Hz to 15kHz
S/N ratio:	
SP mode (Dolby off)	Better than 52dB (3% distortion)
Conventional mode	Better than 50dB (3% distortion)

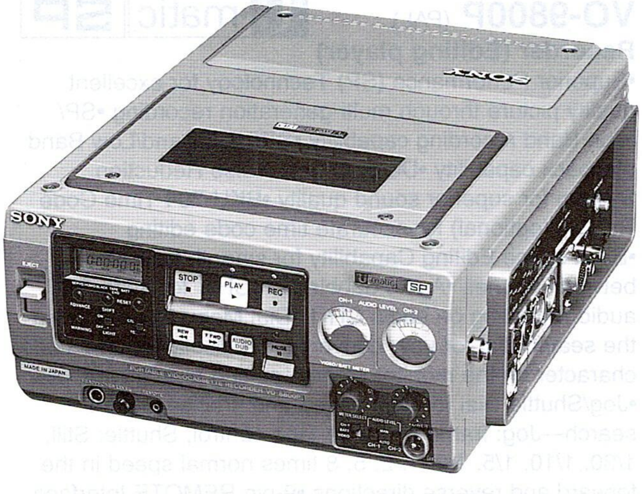
Time code	
Input:	0dB ±6dB, 10kΩ, unbalanced (0dB=1.55Vp-p pulse)
Output:	0dB ±3dB, low impedance, unbalanced (0dB=1.55Vp-p pulse)
RF output	NO
Tape transport	
Tape speed:	9.53mm/s (3.8 ips)
Wow and flutter:	0.23% p-p DIN
REC or PB time:	Max. 60min
Videocassette:	KSP/KSP-S/KCA-BRS/KCS-BRS
Technical features	
Frame code operation:	NO
Remote control:	YES (9-pin and 33-pin)
Electronic editing:	YES (Back space editing)
Time code editing:	YES (with BKU-704)
Time code capability:	YES (with BKU-704)
High speed picture search:	YES (1/30, 1/10, 1/5, 1/2, 1, 2, 5, 8)
Jog search:	YES
Noiseless pause/still:	YES
Dolby noise reduction:	YES (C-Type)
Audio dubbing:	YES (CH-1)
EXT sync lock (vertical):	YES
Programmed operation:	YES (CTL counter)
Timer operation:	NO
RF unit adaptable:	NO

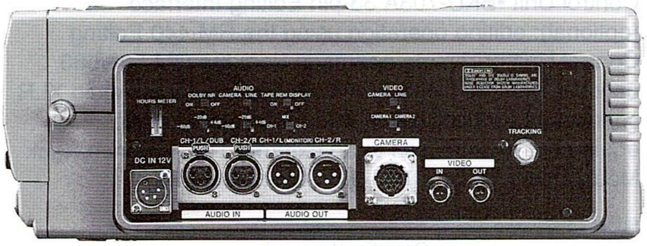
VO-8800P (PAL) U-matic SP

U-matic portable recorder

*Production of this product has been discontinued. For details, please consult your nearest Sony office.

•Ideally suited for news gathering and outdoor recording •Superior Performance (SP) Technology for excellent quality picture •SP/High Band recording and playback capability •Dolby C-type Noise Reduction System for superior sound quality •BKU-706 Plug-in Time Code Generator (optional) for time code recording •Y/C separate input (14-pin Camera) to reduce cross colour •Back-space Editing Capability for smooth transitions between scenes •Video Confidence Playback to verify the recorded pictures simultaneously during recording •Three ways of warning system: warning on LCD/camera viewfinder and through audible warning alarm •Simple remote operation by the RM-770 optional Remote Control Unit (Wired only) •High speed picture search at ±10 times normal speed •Headphone jack for audio monitoring •Audio XLR Connectors •Battery operation: NP-1B × 2 •Compact and lightweight (6.2 kg, 13 lb 10 oz)





Supplied accessories:	Operation manual Shoulder strap
Optional accessories:	Time code generator BKU-706 Carrying handle AH-8800 Soft carrying case LC-8800 Rechargeable battery NP-1B Battery charger BC-1WDCE Camera adaptor CMA-8ACE Cable (CMA-8ACE g VO-8800P) 3m for AC adaptor CCQX-3 Remote control unit RM-770

Specifications

General	
Type:	SP U-matic Portable Recorder
Video recording system:	Rotary 4 head helical scan Luminance: FM recording Chrominance: Converted subcarrier
Video signal system:	CCIR monochrome/PAL colour
Operating temperature:	0 to 40°C (32 to 104°F)
Power requirements:	DC 12V
Operating voltage:	DC 11 to 14V
Power consumption:	17.5W
Dimensions:	263 (W) × 130 (H) × 354 (D) mm ($10^{3}/_{8} \times 5^{1}/_{8} \times 14$ inches)
Mass:	6.2 kg (13 lb 10 oz)
Video signal	
Recording and Playback mode:	High band and SP mode
Input:	1.0Vp-p ±0.3V, sync negative 75Ω, unbalanced
Output:	1.0Vp-p ±0.2V, sync negative 75Ω, unbalanced
Horizontal resolution:	
SP mode	330 lines (colour, Y/C input) 300 lines (colour, composite)
High Band mode	260 lines (colour, composite)
S/N ratio (colour):	Better than 46dB
Audio signal	
Input:	AUDIO IN CH-1/L/DUB, CH-2/R (XLR 3-pin, female) (1) each +4dBu/–20dBu/–60dBu switchable +4dBu: more than 10kΩ, balanced –20dBu/–60dBu: more than 3kΩ, balanced CAMERA (microphone input) (audio channel 2) +4dBu/–20dBu/–60dBu switchable +4dBu: more than 10kΩ, balanced –20dBu/–60dBu: more than 3kΩ, balanced
Output:	AUDIO OUT CH-1/L (monitor), CH-2/R (XLR 3-pin, male) (1) each +4dBu, low impedance, balanced Headphone: –40dBu to –20dBu (at 8Ω), unbalanced
Frequency response:	50Hz to 15kHz
S/N ratio:	
SP mode (Dolby off)	Better than 52dB (3%distortion)
Conventional mode	Better than 50dB (3%distortion)

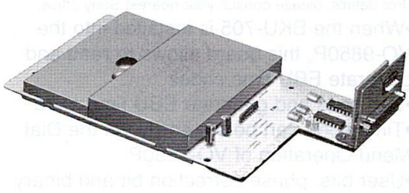
Time code	
Input:	0dB ±6dB, 10kΩ, unbalanced (0dB=1.55Vp-p pulse)
Output:	0dB ±3dB, low impedance, unbalanced (0dB=1.55Vp-p pulse)
RF output	NO
Tape transport	
Tape speed:	9.53cm/s (3.8 ips)
Wow and flutter:	0.2% p-p DIN
REC or PB time:	Max. 20min
Videocassette:	KSP-S/KCS-BRS
Technical features	
Frame code operation:	NO
Remote control:	YES (simple, wired only)
Electronic editing:	YES (Back space editing)
Time code editing:	YES (with BKU-706)
Time code capability:	YES (with BKU-706)
High speed picture search:	YES (× 10)
Jog search:	NO
Noiseless pause/still:	YES
Dolby noise reduction:	YES (C-Type)
Audio dubbing:	YES (CH-1)
EXT Sync lock (vertical):	YES
Programmed operation:	NO
Timer operation:	NO
RF unit adaptable:	NO

BKU-701

Computer interface board

- Reads the Frame Codes that have been recorded onto the videocassette tape
- Provides an RS-232C interface and allows the VTRs to be controlled from an external computer or the RX-707
- Video/audio signals can be output or muted by setting the BKU-701 dip switches to ON or OFF
- The baud rate can be selected from 1200, 2400, 4800, or 9600 bits per second (bps)

Signal: RS-232C
Connector: D-sub 25-pin
Dimensions: Approx.
125 (W) × 52 (H) × 223 (D) mm
(5 × $2^{1}/_{8}$ × $8^{7}/_{8}$ inches)
Mass: Approx. 260 g (9 oz)
Recommended VTR:
VO-7630/9600P,
VP-7040/9000P
Supplied accessory:
Operation manual



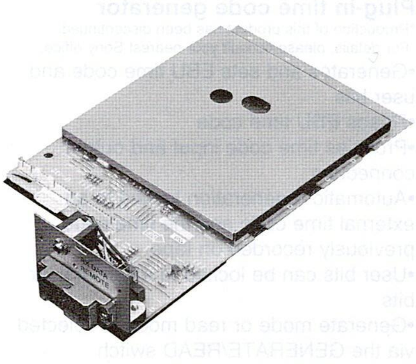
BKU-702

33-pin interface board

*Production of this product has been discontinued.
For details, please consult your nearest Sony office.

- When the BKU-702 is installed into the VP-7040, the VP-7040 can be controlled remotely by a current 33-pin remote control unit such as the RM-500/555/580

Dimensions: 125 (W) × 52 (H) × 223 (D) mm
(5 × $2^{1}/_{8}$ × $8^{7}/_{8}$ inches)
Mass: Approx. 260 g (9 oz)
Recommended VTR:
VP-7040
Supplied accessory:
Installation manual



BKU-703A

33-pin editing interface

*Production of this product has been discontinued.
For details, please consult your nearest Sony office.

- The BKU-703A 33-pin (parallel) editing interface can be installed into the VO-9850P/9800P, EVO-9850P for connection with the 33-pin remote control units such as the RM-500, RM-580 and RM-555

Dimensions: 63 (W) × 109 (H) × 64 (D) mm
($2^{1}/_{2}$ × $4^{3}/_{8}$ × $2^{5}/_{8}$ inches)
Mass: 230 g (8 oz)
Recommended VTR:
VO-9850P/VO-9800P and
EVO-9800P
Supplied accessory:
Installation manual

REMOTE 2 (33P)
REMOTE 2(33P)
REMOTE 1(9P)

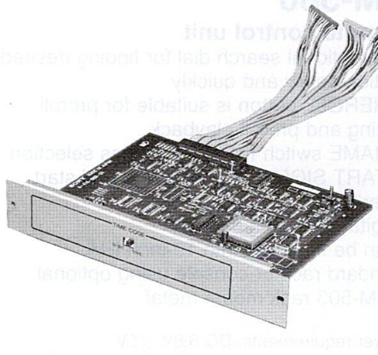
BKU-704

Time code reader

*Production of this product has been discontinued.
For details, please consult your nearest Sony office.

- When the BKU-704 is installed into the VO-9850P/9800P, this board allows to read EBU time codes
- Time code or user bits can be superimposed on the video signal (monitor output) via the Dial Menu Operation of VO-9850P/9800P
- Easy installation

Time Code: EBU
Dimensions: 199 (W) × 41 (H) × 145 (D) mm
($7^{7}/_{8}$ × $1^{5}/_{8}$ × $5^{3}/_{4}$ inches)
Mass: 190 g (7 oz)
Recommended VTR:
VO-9850P and VO-9800P
Supplied accessory:
Installation manual



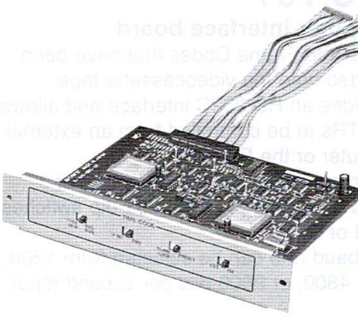
BKU-705

Time code generator/reader

*Production of this product has been discontinued.
For details, please consult your nearest Sony office.

- When the BKU-705 is installed into the VO-9850P, this board allows to read and generate EBU time codes
- Can read and generate EBU time code
- Time code can be set easily via the Dial Menu Operation of VO-9850P
- User bits, phase correction bit and binary group flag can be set via the Dial Menu Operation of VO-9850P
- Free-run/rec-run mode can be selected via a switch
- Time code or user bits can be super imposed on the video signal (monitor output) via the Dial Menu Operation of VO-9850P
- Regeneration capability to an external time code or the one previously recorded on the tape
- Easy installation

Time Code: EBU
Dimensions: 199 (W) × 41 (H) × 145 (D) mm
($7^{7}/_{8} \times 1^{5}/_{8} \times 5^{3}/_{4}$ inches)
Mass: 200 g (7 oz)
Recommended VTR:
VO-9850P
Supplied accessory:
Installation manual



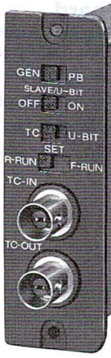
BKU-706

Plug-in time code generator

*Production of this product has been discontinued.
For details, please consult your nearest Sony office.

- Generates and sets EBU time code and user bits
- Reads EBU time code
- Provides time code input and output connectors
- Automatic regeneration locked to an external time code and the time code previously recorded on tape
- User bits can be locked to external user bits
- Generate mode or read mode is selected via the GENERATE/READ switch
- Free run/Rec run is selectable
- Time code data is memorized and generated for more than 12 hours after the power is turned off when NP-1B batteries are installed

Time code: EBU
Dimensions: 28 (W) × 86 (H) × 81 (D) mm
($1^{1}/_{8} \times 3^{1}/_{3} \times 3^{1}/_{4}$ inches)
Mass: 130 g (5 oz)
Recommended VTR:
VO-8800P
Supplied accessory:
Installation manual



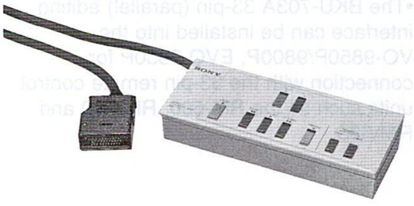
RM-500

Remote control unit

*Production of this product has been discontinued.
For details, please consult your nearest Sony office.

- Basic functions of a VTR can be controlled remotely
- SEARCH buttons for picture search in both forward and reverse directions
- Can be mounted into 19-inch EIA standard rack or console using optional RMM-502 rack mount metal or optional RMM-505 rack mount metal (in case of attaching two RM-500s)

Power requirements:
DC 6.8V $^{+0.7}_{-0.3}$ V
(supplied from the VTR)
Power consumption: 1.2W
Operating temperature:
0 to 40°C (32 to 104°F)
Operating position: Any position
Dimensions: Approx.
212 (W) × 87 (H) × 38 (D) mm
($8^{3}/_{8} \times 3^{1}/_{2} \times 1^{1}/_{2}$ inches)
Cable length: Approx. 3 m (10 ft.)
with 33-pin connector
Extendable up to
approx. 18 m (60 ft.)
Mass: Approx. 0.9 kg (2 lb) incl. cable
Recommended VTR:
VO-7630/9600P,
VP-7040/9000P



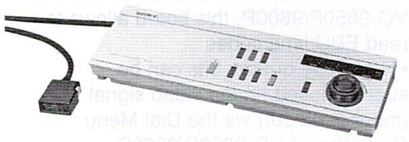
RM-580

Remote control unit

- Bidirectional search dial for finding desired portion easily and quickly
- PREROLL button is suitable for preroll editing and preroll playback
- FRAME switch for 30/25 frames selection
- START SIGN to trigger the preroll start externally
- Digital tape time counter
- Can be mounted into 19-inch EIA standard rack or console using optional RMM-503 rack mount metal

Power requirements: DC 6.8V $^{+0.7}_{-0.3}$ V
(supplied from the VTR)
Power consumption: 2.0W

Digital time counter:
–9hours 59min 59s
29/24 frames to +9 hours 59min
59s 29/24 frames
Operating temperature:
0 to 40°C (32 to 104°F)
Operating position: Any position
Dimensions: Approx.
424 (W) × 60 (H) × 124 (D) mm
($16^{3}/_{4} \times 2^{3}/_{8} \times 5$ inches)
Cable length: Approx. 3 m (10 ft.)
with 33-pin connector
Extendable up to
approx. 18 m (60 ft.)
Mass: Approx.
2.0 kg (4 lb 7 oz) incl. cable
Recommended VTR:
VO-7630/9600P, VP-7040/9000P



RM-770

Remote control unit

- Wireless/wired remote control capability for the VO-8800P/6800PS/7630/9600P, VP-7040/9000P
- Controls advanced functions such as SEARCH-FWD/SEARCH-REW, in addition to the basic functions of STOP/ REC/ PAUSE/F FWD/PLAY

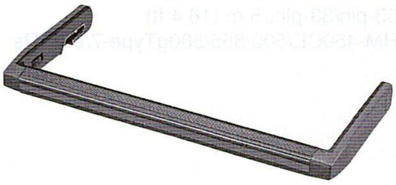
Power requirements:	DC 5V (wireless: supplied from two R6 (AA size) batteries; wired: supplied from the VTR)
Power consumption:	0.2W
Connector:	Special mini
Dimensions:	Approx. 65 (W) × 18 (H) × 150 (D) mm ($2\frac{5}{8} \times 2\frac{3}{32} \times 6$ inches)
Mass:	Approx. 105 g (4 oz) (excluding batteries)
Recommended VTR:	VO-8800P/7630/9600P VP-7040/9000P
Supplied accessories:	Receiver 5 m cable R6 (AA size) battery (2)

AH-8800

Carrying handle for VO-8800P

*Production of this product has been discontinued.
For details, please consult your nearest Sony office.

Mass: 370 g (13 oz)



LC-8800

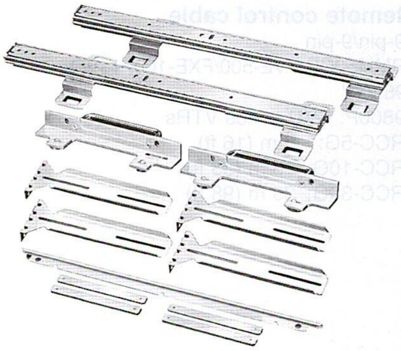
Soft carrying case for VO-8800P

*Production of this product has been discontinued.
For details, please consult your nearest Sony office.

RMM-501

Rack mount kit

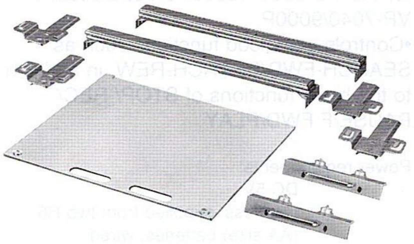
- Rack mount kit for use in mounting VO-9850P/9800P into 19-inch rack



RMM-507

Rack mount kit

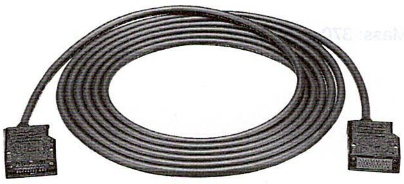
- Rack mount kit for use in mounting VO-9600P/7630 and VP-9000P/7040 into 19-inch rack



RCC-5F

Remote control cable

- 33-pin/33-pin, 5 m (16.4 ft)
- RM-450CE/500/555/580gType-7/9 VTRs



RCC-15FT

Remote control extension cable

- 33-pin/33-pin, 15 m (49.2 ft)
- RM-450CE/500/555/580gAll Type-7/9 VTRs

RCC-G cables

Remote control cable

- 9-pin/9-pin
- RM-450CE/PVE-500/FXE-100P↔VO-9850P/9800P, BVU series VTRs
- RCC-5G: 5 m (16 ft)
  RCC-10G: 10 m (33 ft)
  RCC-30G: 30 m (98 ft)

VTR accessory combinations

○Recommendable △Usable

		VO-9800P	VO-9850P	VP-9000P	VO-9600P	VP-7040	VO-7630	VO-8800P	BVU series
Remote controller and peripherals	RM-450CE	○	○						○
	RM-500	△ with BKU-703A	△ with BKU-703A	△	△	△ with BKU-702	△		
	RM-580	△ with BKU-703A	△ with BKU-703A	○	○	○ with BKU-702	○		
	RM-770			○	○	○	○	○	
	RM-555	△ with BKU-703A	△ with BKU-703A	○	○	○ with BKU-702	○		
	BKU-701			○	○	○	○		
	BKU-702					○			
	BKU-703A	○	○						
	BKU-704	○	△						
	BKU-705		○						
	BKU-706							○	
Others	RMM-501	○	○						○ BVU-900 series only
	RMM-507			○	○	○	○		
	AH-8800							○	
	LC-8800							○	

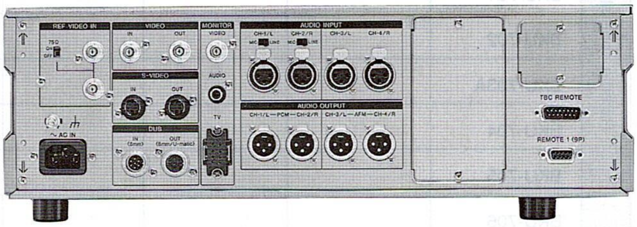
EVO-9850P

video Hi8

Hi8 videocassette editing recorder/player

*Production of this product has been discontinued. For details, please consult your nearest Sony office.

•Video Hi8 format for excellent picture quality: 400TV lines •Full editing capability: assemble and insert (Video/PCM-1/PCM-2/Time Code) editing mode •Built-in TBC (8-bit, 4fsc)—controlled from the optional remote control unit •Digital NR (chrominance and luminance noise reducer) •Frame accurate time code based editing capability: 0 frame accuracy •Quick response mechanism •EBU time code IN/OUT interface (optional) •Built-in 8 mm time code generator/reader •PCM digital and AFM stereo audio recording systems •JOG/SHUTTLE dial for picture search •Dial menu operation •9-pin remote connector (RS-422A) •PCM audio monitoring capability in the JOG search mode •Sony 33-pin remote interface (BKU-703A: Optional) •8 mm DUB IN/OUT (7-pin) connectors •U-matic DUB OUT (7-pin) connector—use the 8 mm DUB OUT connector in common •S-VIDEO IN/OUT connectors •19-inch rack mountable (with RMM-980), 3-unit high



Supplied accessories:	V8-25CLH cleaning videocassette Operation manual
Optional accessory:	EBU time code IN/OUT board EVBK-110 33-pin editing interface BKU-703A TBC remote control unit UVR-60P Rack mount kit RMM-980 9-pin remote cable RCC-5G/10G/30G 33-pin remote cable RCC-5F U-matic dubbing cable VDC-5A

Specifications

General

Mass:	13.0 kg (28 lb 10 oz)
Dimensions:	424 (W) × 147 (H) × 452 (D) mm ($16\frac{3}{4} \times 5\frac{7}{8} \times 17\frac{3}{4}$ inches)
Power requirements:	AC 220 to 240V, 50/60Hz
Power consumption:	60W
Operationg temperature:	5 to 40°C (41 to 104°F)
Videocassette:	Sony E5-HMEX, E5-HMEAD, P5-HMPX
Tape speed:	20.05mm/s
REC and PB time:	Approx. 90min (with E5-90/P5-90)
FF/REW time:	Approx. 3min (with E5-90/P5-90)
Search speed:	SHUTTLE mode: STILL FORWARD: 1/20, 1/10, 1/5, 1/2, 1, 3, 9, 13 times normal speed REVERSE: 1/20, 1/10, 1/5, 1/2, 1, 3, 7, 13 times normal speed

Video

Video recording system:	Two rotary heads and a flying erase head helical scanning FM system
Video signal system:	CCIR monochrome/PAL colour
Input:	
PAL composite video:	BNC connector 1.0Vp-p ±0.3V, 75Ω, unbalanced, sync negative
Y/C:	Mini DIN 4-pin Y: 1.0Vp-p ±0.3V, 75Ω, unbalanced, sync negative C: 0.3Vp-p, at burst level, 75Ω, unbalanced
8 mm DUB IN:	7-pin connector
REF IN:	Loop-through BNC connector
Output:	
PAL composite:	BNC connector 1.0Vp-p ±0.2V, 75Ω, unbalanced, sync negative
Y/C:	Mini DIN 4-pin Y: 1.0Vp-p (0.2V, 75Ω) C: 0.3Vp-p, at butst level, 75Ω, unbalanced
8 mm/U-matic DUB OUT:	7-pin connector
TV OUT:	8-pin connector
Horizontal resolution:	Hi8 mode (HME): 400TV lines
S/N ratio:	Hi8 mode: better than 45dB
REMOTE:	RS-422A (1) (9-pin) TBC REMOTE (1) (D-sub 15-pin)

Audio

Input (0dBu = 0.775Vrms):	
	Line: +4dBu, more than 10kΩ, balanced Mic: –60dBu, more than 3kΩ, balanced
Output (0dBu = 0.775Vrms):	
	Line: +4dBu (at 600Ω) balanced Headphones: –26dBu to –46dBu (at 8Ω), unbalanced
Frequency response:	PCM: 20Hz to 15kHz
Dynamic range:	PCM: better than 80dB

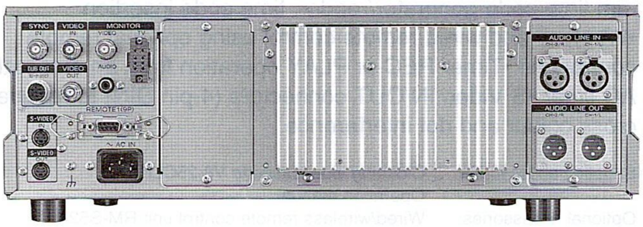
EVO-9800P

video Hi8

Video Hi8 recorder/player

*Production of this product has been discontinued. For details, please consult your nearest Sony office.

•Video Hi8 format for improved picture quality: 400TV lines •Video Hi8 and standard 8 mm format recording/ playback capability •Video Hi8 tape for Hi8 recording and high picture quality •Built-in Digital Chrominance Noise Reducer (Digital CNR) for improving chrominance S/N ratio and providing minimum jitter •PCM (Pulse Code Modulation) digital stereo and AFM (Audio Frequency Modulation) recording systems •U-matic DUB OUT connector for direct connection to the U-matic VTR via the VDC-5A dubbing cable to minimize picture degradation •Built-in 8 mm time code generator/ reader •8 mm time code insertion or after recording capability •Dial Menu Operation via the search dial for user convenience: Display of time code character on the monitor screen, Setting preroll time, etc. •Shuttle Dial for high speed picture search: STILL, 1/30, 1/10, 1/5, 1/3, 1, 2, 9, 15 times normal speed in the forward and 1/30, 1/10, 1/5, 1/3, 1, 3, 7, 13 times normal speed in the reverse direction •Jog Dial for precise frame by frame picture search •9-pin REMOTE interface for connection with RM-450CE Editing Control Unit •BKU-703A 33-pin Editing Interface (optional) for editing operation with the RM-440 •Audio XLR connectors •Compact size and 19-inch rack mountable: with RMM-980 Rack Mount Kit (3 Unit)



Supplied accessories:	AC power cord Operation manual
Optional accessories:	33-pin editing interface BKU-703A Rack mount kit RMM-980 9-pin remote cable RCC-5G/10G/30G 33-pin remote cable RCC-5F U-matic dubbing cable VDC-5A

Specifications

General	
Mass:	14.0 kg (30 lb 14 oz)
Dimensions:	424 (W) × 147 (H) × 452 (D) mm ($16\frac{3}{4} \times 5\frac{7}{8} \times 17\frac{3}{4}$ inches)
Power requirements:	AC 220 to 240V, 50/60Hz
Power consumption:	50W
Operating temperature:	0 to 40°C (32 to 104°F)
Videocassette:	Sony E5-HMEX, E5-HMEAD, P5-HMPX videocassette
Tape speed:	20.05mm/s
REC or PB time:	90min with E5-90 tape
Recording and playback format:	Video Hi8 and standard 8 mm format
Video	
Video recording system:	Two rotary heads and a flying erase head helical scanning FM system
Video signal system:	CCIR monochrome/PAL colour
Input:	1.0Vp-p, sync negative, 75Ω, unbalanced S connector (Mini DIN 4-pin): Y: 1.0Vp-p ±0.1V, 75Ω, unbalanced, sync negative C: 0.3Vp-p, at burst level, 75Ω, unbalanced
Output:	1.0Vp-p, sync negative, 75Ω, unbalanced S connector (Mini DIN 4-pin): Y: 1.0Vp-p ±0.1V, 75Ω, unbalanced, sync negative C: 0.3Vp-p, at burst level, 75Ω, unbalanced
Horizontal resolution:	Video Hi8 mode: 400TV lines
S/N ratio:	Video Hi8 mode: better than 45dB
Audio	
Input:	LINE: CH-1/CH-2 (XLR 3-pin, female): +4dBu, 10kΩ, balanced Microphone: –60dBu, 4.3kΩ, unbalanced Phono: –7.5dBu, 47kΩ, unbalanced
Output:	LINE: CH-1/CH-2 (XLR 3-pin, male): +4dBu, 10kΩ, balanced
Frequency response:	20Hz to 15kHz
Dynamic range:	PCM: better than 85dB

EVO-9500P

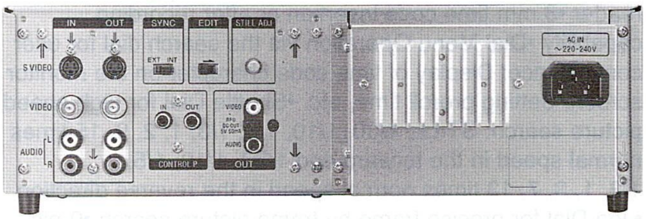
video Hi8

Video Hi8 recorder/player

*Production of this product has been discontinued. For details, please consult your nearest Sony office.

•Video Hi8 format for improved picture quality: 400TV lines •Video Hi8 and standard 8 mm format recording/ playback capability •Video Hi8 tape for Hi8 recording and high picture quality •PCM (Pulse Code Modulation) digital stereo and AFM (Audio Frequency Modulation) recording systems •Auto repeat function •Clear still and slow motion pictures thanks to Dual Azimuth 4-head design •Control P terminals for multiple VTR operation •Additional audio recording on the PCM sound track •Built-in 8 mm time code capability: 8 mm time code generator/reader, time code insertion •Wireless and wired remote control using optional remote control unit •Timer REC or PLAY operation from an external AC timer •S Video IN/OUT connectors (4-pin DIN) to reduce cross colour and dot interference

SONY
video Hi8
Hi8
EVO-9500P



Supplied accessories:	Cleaning videocassette V8-25CLH Operation manual
Optional accessories:	Wired/wireless remote control unit RM-S52A

Specifications

General	
Mass:	6.5 kg (14 lb 5 oz)
Dimensions:	355 (W) × 116 (H) × 387 (D) mm (14 × $4^{5}/_{8}$ × $15^{1}/_{4}$ inches)
Power requirements:	AC 220 to 240V, 50/60Hz
Power consumption:	25W
Operating temperature:	0 to 40°C (32 to 104°F)
Videocassette:	Sony E5-HMEX, E5-HMEAD, P5-HMPX videocassette
Tape speed:	20.05mm/s
REC or PB time:	90min with E5-90 tape
Recording and playback format:	Video Hi8 and standard 8 mm format
Video	
Video recording system:	Two rotary heads and a flying erase head helical scanning FM system
Video signal system:	CCIR monochrome/PAL colour
Input:	1.0Vp-p, sync negative, 75Ω, unbalanced S connector (Mini DIN 4-pin): Y: 1.0Vp-p ±0.1V, 75Ω, unbalanced, sync negative C: 0.3Vp-p, at burst level, 75Ω, unbalanced
Output:	1.0Vp-p, sync negative, 75Ω, unbalanced S connector (Mini DIN 4-pin): Y: 1.0Vp-p ±0.1V, 75Ω, unbalanced, sync negative C: 0.3Vp-p, at burst level, 75Ω, unbalanced
Horizontal resolution:	Video Hi8 mode: 400TV lines
S/N ratio:	Video Hi8 mode: better than 45dB
Audio	
Input:	Microphone: –60dBu, 3kΩ, unbalanced Phono: –7.5dBu, 47kΩ, unbalanced
Output:	Phono: –7.5dBu, 22kΩ, unbalanced
Frequency response:	20Hz to 15kHz
Dynamic range:	PCM: better than 85dB

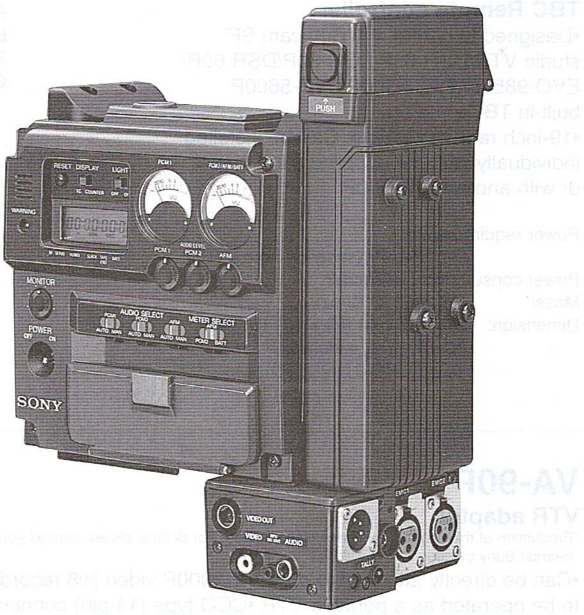
EVV-9000P

video Hi8

Video Hi8 recorder unit

*Production of this product has been discontinued. For details, please consult your nearest Sony office.

•Compact and lightweight camcorder by connecting to Sony 3-CCD colour video camera DXC-327BP/637P/D30P •Video Hi8 format for improved picture quality: 400TV lines •Video Hi8 and standard 8 mm format recording/playback capability •Video Hi8 tape for Hi8 recording and high picture quality •Y/C separate input via 50-pin DIN to reduce cross colour •PCM (Pulse Code Modulation) digital stereo and AFM (Audio Frequency Modulation) recording systems •XLR balanced audio connectors for stable signal transmission •MIC/LINE input selectable •Built-in 8 mm time code generator •Warning indications for reliable operation •REC REVIEW function convenient for confirmation of recording •Low power consumption of 7.5W •LCD window: indication of time code, warnings, etc. •Built-in earspeaker for audio monitoring •RF out

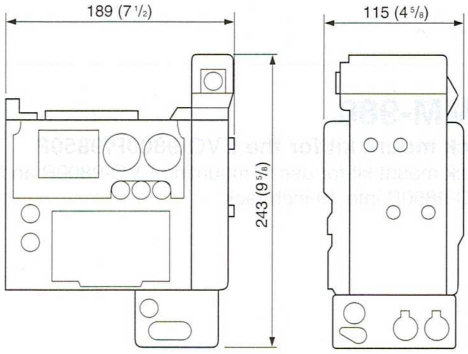


Supplied accessories:	Shoulder strap Guide for attaching shoulder strap Metal mount for attaching shoulder strap V8-25CLH cleaning cassette Operation manual
Optional accessories:	3-chip CCD colour video camera DXC-327BP/637P/D30P VTR adaptor VA-90P Rechargeable battery NP-1B Battery charger BC-1WDCE Camera adaptor CMA-8ACE AC power cable CCQX-3

Specifications

General	
Mass:	1.8 kg (4 lb)
Dimensions:	115 (W) × 243 (H) × 189 (D) mm ($4^{5}/_{8} \times 9^{5}/_{8} \times 7^{1}/_{2}$ inches)
Power requirements:	DC 12V
Power consumption:	7.5W
Operating temperature:	0 to 40°C (32 to 104°F)
Videocassette:	Sony E5-HMEX, E5-HMEAD, P5-HMPX videocassette
Tape speed:	20.05mm/s
REC or PB time:	90min with E5-90 tape
Recording and playback format:	Video Hi8 and standard 8 mm format
Video	
Video recording system:	Two rotary heads and a flying erase head helical scanning FM system
Video signal system:	CCIR monochrome/PAL colour
Input:	Y: 1.0Vp-p ±0.1V, 75Ω, unbalanced, sync negative C: 0.3Vp-p, at burst level, 75Ω, unbalanced
Output:	1.0Vp-p, sync negative, 75Ω, unbalanced
Horizontal resolution:	Video Hi8 mode: 400TV lines
S/N ratio:	Video Hi8 mode: 44dB
Audio	
Input:	Microphone: –60dBu, 3kΩ, balanced LINE: +4dBu, 10kΩ, balanced
Output:	Phono: –10dBu, 47kΩ, unbalanced
Frequency response:	20Hz to 15kHz
Dynamic range:	PCM: better than 80dB

Dimensions



Unit: mm (inch)

UVR-60P

TBC Remote controller

•Designed to control the Betacam SP studio VTR/DSR-85P/DSR-80P/DSR-60P/ EVO-9850P/SVO-5800P/SVP-5600P built-in TBCs
•19-inch rack mountable: Can be installed individually with the supplied blank panel or with another UVR-60P

Power requirements:
DC 12V, 9V (supplied from VTR)
Power consumption: 840mmW
Mass: 1.3 kg (2 lb 13 oz)
Dimension: 215 (W) × 44 (H) × 101 (D) mm
(8$^{1}/_{2}$ × 1$^{3}/_{4}$ × 4 inches)

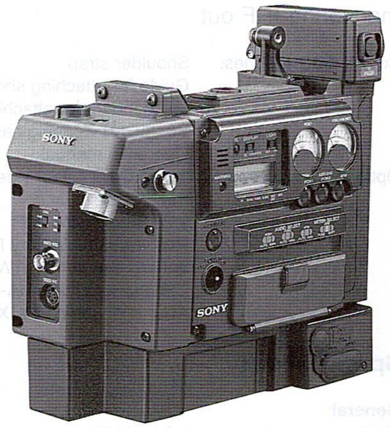
Supplied accessories:
Remote control cable (5 m)
Rack mount bracket
Blank panel
Screw
Operation manual

VA-90P

VTR adaptor

*Production of this product has been discontinued. For details, please consult your nearest Sony office.

•Can be directly attached to the EVV-9000P video Hi8 recorder to be operated as a portable VTR •CCQ type (14-pin) connector for high quality video/audio recording •S-VIDEO IN for high quality video recording •Digital Y/C separator to achieve high quality video recording for composite video signals •Audio input level selectable –20dB/–60dB



RMM-980

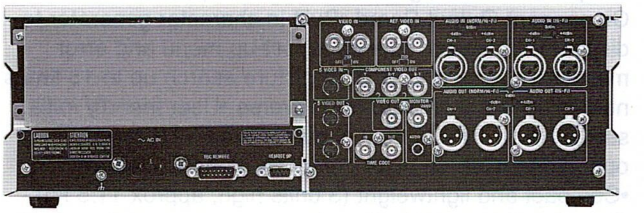
Rack mount kit for the EVO-9800P/9850P

•Rack mount kit for use in mounting EVO-9800P and EVO-9850P into 19-inch rack

SVO-5800P

S-VHS editing recorder

•Superb picture quality with S-VHS recording format and high quality signal processing techniques such as Digital Noise Reducer, Digital Field Dropout Compensator, Digital 3-line Comb Filter and newly developed Chroma Process Improvement •Built-in Time Base Corrector •Four channel audio recording system; two for Hi-Fi (AFM) and two for normal longitudinal audio •Dolby B type Noise Reducer for normal audio •Frame accurate full editing functions (Assemble, video/audio insert and audio split) •Back space editing capability •Built-in EBU standard LTC/VITC time code generator/reader •Optional UVR-60P TBC Remote Controller •Field freeze function with the optional UVR-60P or SVRM-100A Remote Control Unit •RS-422A 9-pin interface •Automatic edit select system •Automatic S-VHS record mode •S-video signal IN/OUT •Composite video signal IN/OUT •Y/R-Y/B-Y component video signal OUT with the optional SVBK-170P Component Output Board •Built-in character generator to display VTR status, time code, set-up menu and error message •Quick and smooth picture search up to 15 times normal speed in forward and reverse •User friendly initial set-up menu for a variety of customized VTR mode operations •Cue up point preset •Auto head cleaner •Compact and lightweight (3 units high, approx 11.5 kg), 19-inch rack mountable •Very low power consumption (60W)



Supplied accessories:	AC power cord Operation manual
Optional accessories:	Component output board SVBK-170P Remote control unit SVRM-100A TBC remote controller UVR-60P Rack mount kit RMM-980 Remote control cable RCC-5G/10G/30G (5 m/10 m/30 m) S-video cable SYC-2/5 (2 m/5 m)

Specifications

General

Mass:	11.5 kg (25 lb 6 oz)
Dimensions:	425 (W) × 145 (H) × 457 (D) mm (16¾ × 5¾ × 18 inches)
Power requirements:	AC 220 to 240V, 50Hz, 3 wire grounded receptacle
Power consumption:	60W
Operating temperature:	5 to 40˚C (41 to 104˚F)
Tape speed:	23.39 mm/s
Tape format:	S-VHS or VHS
F FWD and REW time:	Approx. 2.5min (with SE-180)
Search speed (with optional SVRM-100A)*1:	SHUTTLE: STILL, 1/10*2, 1/5, 1/2, 1, 2, 5, 15 times normal speed, forward and reverse JOG: Frame by frame, forward and reverse

Video

Video signal system:	PAL (colour)/ CCIR (monochrome)
Video recording system:	Rotary two-head helical scanning FM system
Input:	REF VIDEO IN (BNC (2), loop-through): Black burst or 1.0Vp-p, 75Ω, unbalanced, sync negative COMPOSITE IN (BNC (2), loop-through): 1.0Vp-p, 75Ω, unbalanced, sync negative S-VIDEO IN (Mini DIN 4-pin): Y; 1.0Vp-p, 75Ω, unbalanced, sync negative C; 0.3Vp-p (burst), 75Ω, unbalanced
Output:	COMPOSITE OUT (BNC): 1.0Vp-p, 75Ω, unbalanced, sync negative S-VIDEO OUT (Mini DIN 4-pin (2)): Y; 1.0Vp-p, 75Ω, unbalanced, sync negative C; 0.3Vp-p (burst), 75Ω, unbalanced COMPONENT OUT (BNC (3), with optional SVBK-170P): Y; 1.0Vp-p, 75Ω, unbalanced, sync negative R-Y; 0.7Vp-p, 75Ω, unbalanced B-Y; 0.7Vp-p, 75Ω, unbalanced VIDEO MONITOR OUT (Super) (BNC): 1.0Vp-p, 75Ω, unbalanced, sync negative
Horizontal resolution:	VHS: More than 240TV lines S-VHS: More than 400TV lines
S/N ratio:	More than 46dB (in S-VHS/VHS mode)

Audio

Input:	Normal CH-1/2 (XLR): +4/0/–6dBm selectable, 600Ω, balanced Hi-Fi CH-1/2 (XLR): +4/0/–6dBm selectable, 600Ω, balanced
Output:	Normal CH-1/2 (XLR): +4/0/–6dBm selectable at 600Ω load, low impedance, balanced Hi-Fi CH-1/2 (XLR): +4/0/–6dBm selectable at 600Ω load, low impedance, balanced AUDIO MONITOR OUT (PIN): –5dBu, at 47kΩ load, unbalanced HEAD PHONE OUT (STEREO PHONE): –50 to –18dBu at 8Ω load unbalanced
S/N ratio (Normal audio at 3% distortion, Dolby OFF):	More than 43dB
Frequency response:	Normal: 50Hz to 12kHz Hi-Fi: 20Hz to 20kHz
Dynamic range:	More than 90dB (in Hi-Fi mode)

Others

TIME CODE IN (BNC):	0dBu ±6dB, 10kΩ, unbalanced (0dBu=1.55Vp-p PULSE)
TIME CODE OUT (BNC):	0dBu ±3dB at 10kΩ load, unbalanced (0dBu=1.55Vp-p PULSE)

Remote

TBC REMOTE:	15-pin multi
REMOTE:	9-pin multi, RS-422A standards
WIRED SIRCS:	Control-S (Power supplied type)

*1 Without the SVRM-100A attached, search speed is conducted at ±15 times normal speed by continuously pushing the F FWD or REW button.

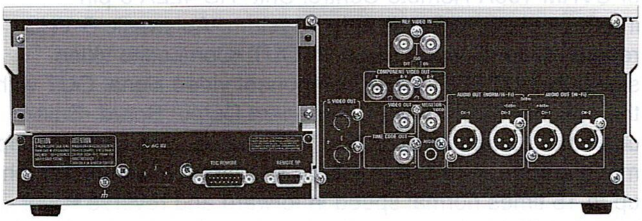
*2 When controlled from an RS-422A equipped editing controller, the minimum search speed is achieved at ±1/20 times normal speed.

SVP-5600P

S VHS

S-VHS editing player

•Superb picture quality with S-VHS recording format and high quality signal processing techniques such as Digital Noise Reducer, Digital Field Dropout Compensator, Digital 3-line Comb Filter and newly developed Chroma Process Improvement •Built-in Time Base Corrector •Four channel audio playback system; two for Hi-Fi (AFM) and two for normal longitudinal audio •Dolby B type Noise Reducer for normal audio •Built-in EBU standard LTC/VITC time code reader •Optional UVR-60P TBC Remote Controller •Field freeze function with the optional UVR-60P or SVRM-100A Remote Control Unit •RS-422A 9-pin interface •S-video signal OUT •Composite video signal OUT •Y/R-Y/B-Y component video signal OUT with the optional SVBK-170P Component Output Board •Built-in character generator to display VTR status, time code, set-up menu and error message •Quick and smooth picture search up to 15 times normal speed in forward and reverse •User friendly initial set-up menu for a variety of customized VTR mode operations •Cue up point preset •Auto head cleaner •Compact and lightweight (3 units high, approx 11.5 kg), 19-inch rack mountable •Very low power consumption (53W)



Supplied accessories:	AC power cord Operation manual
Optional accessories:	Component output board SVBK-170P Remote control unit SVRM-100A TBC remote controller UVR-60P Rack mount kit RMM-980 Remote control cable RCC-5G/10G/30G (5 m/10 m/30 m) S-video cable SYC-2/5 (2 m/5 m)

Specifications

General

Mass:	11.5 kg (25 lb 6 oz)
Dimensions:	425 (W) × 145 (H) × 457 (D) mm (16¾ × 5¾ × 18 inches)
Power requirements:	AC 220 to 240V, 50Hz, 3 wire grounded receptacle
Power consumption:	53W
Operating temperature:	5 to 40˚C (41 to 104˚F)
Tape speed:	23.39 mm/s
Tape format:	S-VHS or VHS
F FWD and REW time:	Approx. 2.5min (with SE-180)
Search speed (with optional SVRM-100A)*1:	SHUTTLE: STILL, 1/10*2, 1/5, 1/2, 1, 2, 5, 15 times normal speed, forward and reverse JOG: Frame by frame, forward and reverse

Video

Video signal system:	PAL (colour)/ CCIR (monochrome)
Input:	REF VIDEO IN (BNC (2), loop-through): Black burst or 1.0Vp-p, 75Ω, unbalanced, sync negative
Output:	COMPOSITE OUT (BNC): 1.0Vp-p, 75Ω, unbalanced, sync negative S-VIDEO OUT (Mini DIN 4-pin (2)): Y; 1.0Vp-p, 75Ω, unbalanced, sync negative C; 0.3Vp-p (burst), 75Ω, unbalanced COMPONENT OUT (BNC (3), with optional SVBK-170P): Y; 1.0Vp-p, 75Ω, unbalanced, sync negative R-Y; 0.7Vp-p, 75Ω, unbalanced B-Y; 0.7Vp-p, 75Ω, unbalanced VIDEO MONITOR OUT (Super) (BNC): 1.0Vp-p, 75Ω, unbalanced, sync negative
Horizontal resolution:	VHS: More than 240TV lines S-VHS: More than 400TV lines
S/N ratio:	More than 46dB (in S-VHS/VHS mode)

Audio

Output:	Normal CH-1/2 (XLR): +4/0/–6dBm selectable at 600Ω load, low impedance, balanced Hi-Fi CH-1/2 (XLR): +4/0/–6dBm selectable at 600Ω load, low impedance, balanced AUDIO MONITOR OUT (PIN): –5dBu, at 47kΩ load, unbalanced
HEAD PHONE OUT (STEREO PHONE):	–50 to –18dBu at 8Ω load unbalanced
S/N ratio (Normal audio at 3% distortion, Dolby OFF):	More than 43dB
Frequency response:	Normal: 50Hz to 12kHz Hi-Fi: 20Hz to 20kHz
Dynamic range:	More than 90dB (in Hi-Fi mode)

Others

TIME CODE OUT (BNC):	0dBu ±3dB at 10kΩ load, unbalanced (0dBu=1.55Vp-p PULSE)

Remote

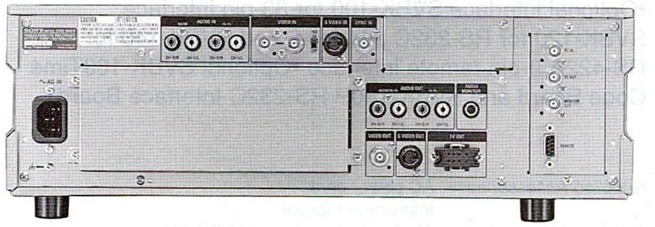
TBC REMOTE:	15-pin multi
REMOTE:	9-pin multi, RS-422A standards
WIRED SIRCS:	Control-S (Power supplied type)

*1 Without the SVRM-100A attached, search speed is conducted at ±15 times normal speed by continuously pushing the F FWD or REW button.
*2 When controlled from an RS-422A equipped editing controller, the minimum search speed is achieved at ±1/20 times normal speed.

SVO-9620 (PAL/NTSC$_{4.43}$)

Recorder

•High quality SVHS picture and sound •PAL/NTSC$_{4.43}$ playback capability •Four channel audio recording system; two for Hi-Fi (AFM) and two for normal longitudinal audio •Dolby B type Noise Reducer for normal audio •Auto head cleaner to provide preventive care of the tape heads •Dial menu operations via the search dial for a variety of customized VTR mode settings •Recognizable colour pictures over a range of -1/30 to +5 (-10 to +10 with the optional DSRM-10) times normal speed in search mode; frame by frame picture search with the JOG dial •Programmed operation with MARK IN A and MARK IN B •Timer Rec and Play function for unattended operations •Sensor recording function •Audio dubbing function for additional audio, such as music or narration, recording •Error code and real time counter indication on the LED display •Optional remote control unit of SVRM-100A and RM-V200 •Optional interface: SVBK-100A for 33-pin interface, SVBK-120 for RS-232C interface, and SVBK-140 for RS-422A 9-pin remote interface •Optional boards: SVBK-150 Digital Noise Reducer, SVBK-160 Time Code Board, SVBK-180P RS-232C Interface Board



Supplied Accessories:	AC power cord Instruction manual
Optional Accessories:	33-pin interface board SVBK-100 Computer interface board (RS-232C) SVBK-120 RS-422A interface board SVBK-140 Digital noise reducer SVBK-150 Time code board SVBK-160 RS-232C Interface board SVBK-180P Remote control unit DSRM-10 Remote control unit RM-V200 Rack mount kit RMM-980

Specifications

General

Mass:	14.0 kg (30 lb 14 oz)
Dimensions:	424 (W) × 147 (H) × 452 (D) mm ($16\frac{3}{4} \times 5\frac{7}{8} \times 17\frac{7}{8}$ inches)
Power requirements:	AC 220 to 240V, 50/60Hz
Power consumption:	Less than 55W
Operating temperature:	5 to 40°C (41 to 104°F)
REC/PB mode:	SP
Tape Speed:	SP: 23. 39mm/s
Tape format:	S-VHS or VHS
F FWD and REW time:	Max. 2min (with SE-120)

Video

Video signal system:	PAL and NTSC$_{4.43}$ Colour
Video recording system:	Rotary two-head helical scanning FM system
Input:	BNC: 1.0Vp-p, 75Ω, sync negative S-VIDEO: Mini DIN 4-pin Y: 1.0Vp-p, 75Ω, sync negative C: 0.3Vp-p, at burst level, 75Ω
Output:	BNC: 1.0Vp-p, 75Ω, sync negative S-VIDEO: Mini DIN 4-pin Y: 1.0Vp-p, 75Ω, sync negative C: 0.3Vp-p, at burst level, 75Ω
Horizontal resolution:	More than 400TV lines (S-VHS) More than 240TV lines (VHS)
S/N ratio:	45dB (colour)

Audio

Input:	Phono: –6dBu, 47kΩ, unbalanced
Output:	Phono: –6dBu, 10kΩ, unbalanced
Monitor Output:	Phono: –5dBu, 10KΩ
Frequency response:	50Hz to 12kHz (in normal mode) 20Hz to 20kHz (in Hi-Fi mode)
Dynamic range:	90dB (in Hi-Fi mode)

Connectors

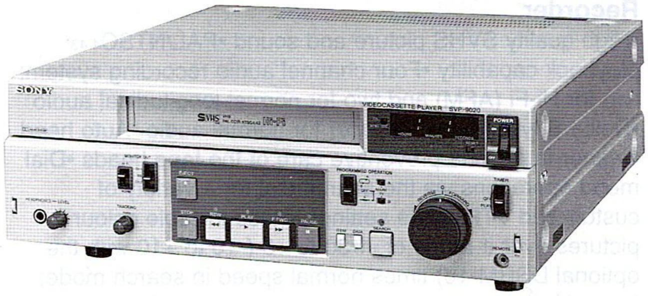
Video:	IN (1) with loopthrough out (BNC) OUT (1) (BNC) SYNC IN (1) (BNC)
Audio:	Hi-Fi (AFM) IN (2) (Phono) NORMAL IN (2) (Phono) Hi-Fi (AFM) OUT (2) (Phono) NORMAL OUT (2) (Phono) Monitor OUT (1) (Phono)
S VIDEO:	IN (1) (Mini DIN 4-pin) OUT (1) (Mini DIN 4-pin)
TV connector:	OUT (1) (8-pin)

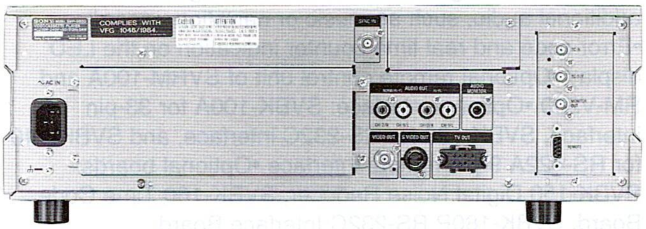
SVP-9020 (PAL/NTSC$_{4.43}$)

S VHS

Player

•High quality SVHS pictuer and sound •PAL/NTSC$_{4.43}$ playback capability •Four channel audio playback system: two for Hi-Fi (AFM) and two for normal longitudinal audio •Doldy B type Noise Reducer for normal audio •Auto head cleaner to provide preventive care of the tape heads •Dial menu operation via the search dial for a vairiety of customize VTR mode setting •Recognizable colour pictures over a range of/10to +10 times normal speed in search mode;frame by frame pictuer search with the JOG dial •Programmed operation with MARK IN A and MARK IN B •TimerRec and Play function for nuattended operation •Error code and real time counter indication on the LED display •Optional remote contrrol unit of SVRM-100A and RM-V200 •Optional interface:SVBK-100 for 33-pin interface, SVBK-120 for RS-232C interface, and SVBK-140 for RS-422A 9-pin remote interface •Optional SVBK-160Time Code Board and SVBK-180P RS-232C Interface Board





Supplied Accessories:	AC power cord Instruction manual
Optional Accessories:	33-pin interface board SVBK-100 Computer interface board (RS-232C) SVBK-120 RS-422A interface board SVBK-140 Digital noise reducer SVBK-150 Time code board SVBK-160 RS232C Interface Board SVBK-180P Remote control unit DSRM-10 Remote control unit RM-V200 Rack mount kit RMM-980

Specifications

General

Mass:	14.0 kg (30 lb 14 oz)
Dimensions:	424 (W) × 147 (H) × 452 (D) mm ($16\,^{3}/_{4} \times 5\,^{7}/_{8} \times 17\,^{7}/_{8}$ inches)
Power requirements:	AC 220 to 240V, 50/60Hz
Power consumption:	Less than 55W
Operating temperature:	5 to 40°C (41 to 104°F)
REC/PB mode:	SP
Tape Speed:	SP: 23.39mm/s
Tape format:	S-VHS or VHS
F FWD and REW time:	Max. 2min (with SE-120)

Video

Video signal system:	PAL and NTSC$_{4.43}$ Colour
Video recording system:	Rotary two-head helical scanning FM system
Input:	BNC: 1.0Vp-p, 75Ω, sync negative S-VIDEO: Mini DIN 4-pin Y: 1.0Vp-p, 75Ω, sync negative C: 0.3Vp-p, at burst level, 75Ω
Output:	BNC: 1.0Vp-p, 75Ω, sync negative S-VIDEO: Mini DIN 4-pin Y: 1.0Vp-p, 75Ω, sync negative C: 0.3Vp-p, at burst level, 75Ω
Horizontal resolution:	More than 400TV lines (S-VHS) More than 240TV lines (VHS)
S/N ratio:	45dB (colour)

Audio

Output:	Phono: –6dBu, 10kΩ, unbalanced
Monitor Output:	Phono: –5dBu, 10KΩ
Frequency response:	50Hz to 12kHz (in normal mode) 20Hz to 20kHz (in Hi-Fi mode)
Dynamic range:	90dB (in Hi-Fi mode)

Connectors

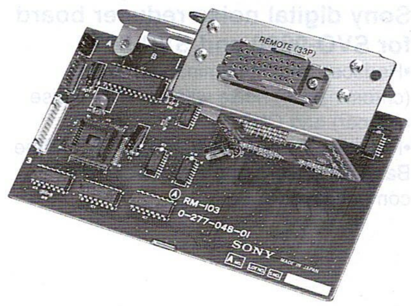
Video:	OUT (1) (BNC) SYNC IN (1) (BNC)
Audio:	Hi-Fi (AFM) IN (2) (Phono) NORMAL IN (2) (Phono) Monitor OUT (1) (Phono)
S VIDEO:	OUT (1) (Mini DIN 4-pin)
TV connector:	OUT (1) (8-pin)

SVBK-100

Sony 33-pin interface board for SVO-9620/9500MDP and SVP-9020

- When this board installed, VTR functions can be remotely controlled via 33-pin parallel interface

Connector: 33-pin multi connector (1)
Parallel control signal
Dimensions: 168 (W) × 92 (H) × 60 (D) mm
($6^{5}/_{8} \times 3^{5}/_{8} \times 2^{3}/_{8}$inches)
Mass: 330 g (11 oz)

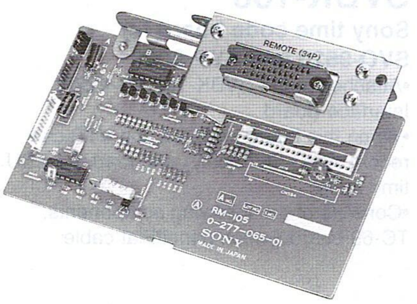


SVBK-110

Sony 34-pin interface board for SVO-9500MDP

- When this board installed, the SVO-9500MDP can be integrated into the 34-pin based control system

Connector: 34-pin multi connector (1)
Parallel control signal
Dimensions: 168 (W) × 92 (H) × 60 (D) mm
($6^{5}/_{8} \times 3^{5}/_{8} \times 2^{3}/_{8}$inches)
Mass: 300 g (11 oz)

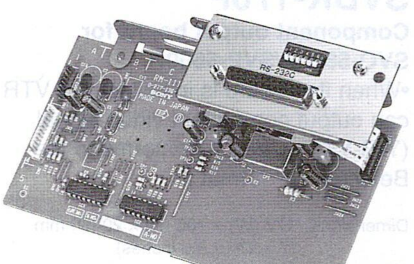


SVBK-120

Computer interface board for SVO-9620/9500MDP and SVP-9020

- Provides RS-232C interface which enables direct control of a VTR from an external computer

Connector: D-sub 25-pin multi connector (1)
Parallel control signal
Dimensions: 168 (W) × 92 (H) × 60 (D) mm
($6^{5}/_{8} \times 3^{5}/_{8} \times 2^{3}/_{8}$inches)
Mass: 300 g (11 oz)

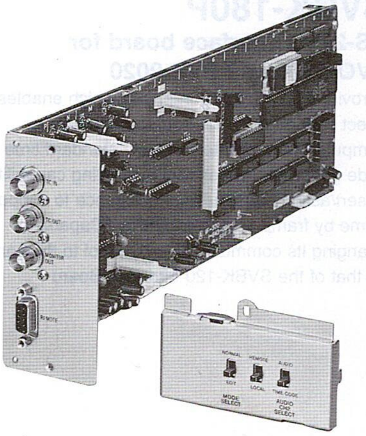


SVBK-140

Sony RS-422A interface board for SVO-9620 and SVP-9020

- By installing this board, the SVO-9620/SVP-9020 can be equipped with 9-pin REMOTE (RS-422A) interface to be configured into Sony's 9-pin based control system

Input/output connector:
TC IN: BNC (1)
0dB±6dB (0dB=1.55Vp-p)
10kΩ, unbalanced
TC OUT: BNC (1)
0dB±3dB, low impedance,
unbalanced
MONITOR OUT: BNC (1)
Supplied accessories: Screw
Operation manual

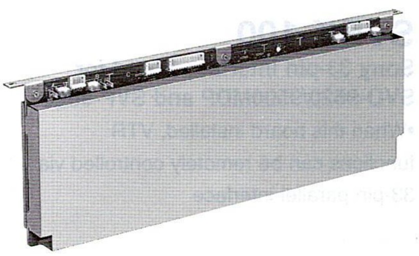


SVBK-150

Sony digital noise reducer board for SVO-9620 and SVP-9020

- Reduces both Y (luminance) and C (chrominance) noise with its YNR (noise reducer) and CNR
- Provides Y Enhance function, TBS (Time Base Stabilizer), and Field dropout compensation

Dimensions: 318 (W) × 106 (H) × 26 (D) mm
($12\frac{5}{8} \times 4\frac{1}{4} \times 1\frac{1}{16}$ inches)
Mass: 370 g (13 oz)
Supplied accessories:
Operation manual

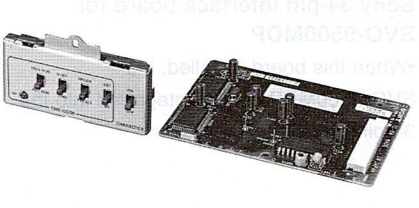


SVBK-160

Sony time code board for SVO-9620 and SVP-9020

- Attaches to the SVBK-140 RS-422A Interface Board
- When this board installed, the VTR can record (SVO-9620 only) and read the EBU time code
- Consists of the following components: TC-69 board/Switch panel/Flat cable

Applicable time code:
SMPTE or EBU longitudinal time code (LTC)
Drop frame (NTSC mode only):
Drop frame or non-drop frame selectable
Dimensions: Board:
118.5 (W) × 85 (H) × 10 (D) mm
($4\frac{3}{4} \times 3\frac{3}{8} \times 1\frac{3}{32}$ inches)
Panel:
85 (W) × 52.5 (H) × 13 (D) mm
($3\frac{3}{8} \times 2\frac{1}{8} \times 1\frac{7}{32}$ inches)
Mass: Board: 80 g (2.8 oz)
Panel: 70 g (2.5 oz)

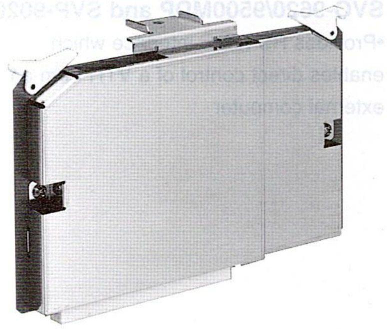


SVBK-170P

Component output board for SVO-5800P/SVP-5600P

- When this board is installed, the VTR can output component video signal (Y/R-Y/B-Y), which conforms to the Betacam SP format

Dimensions: 177 (W) × 105 (H) × 20 (D) mm
($7 \times 4\frac{1}{4} \times \frac{3}{32}$ inches)
Mass: 120 g (4.2 oz)

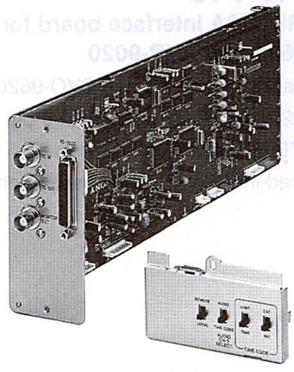


SVBK-180P

RS-232C interface board for SVO-9620 and SVP-9020

- Provides an RS-232C interface which enables direct control of a VTR from an external computer
- Incorporates an EBU standard time code generator/reader
- Built-in editing capability (insert/assemble)
- Built-in intelligence to support frame by frame editing capability
- Capable of changing its communication protocol to the same as that of the SVBK-120 Interface Board

Connector: RS-232C I/F: D-sub 25-pin (1)
Time Code out: BNC (1)
Time Code in: BNC (1)
Monitor out: BNC (1)
Dimensions: Board: 62 (W) × 115 (H) × 361 (D) mm
($2\frac{1}{2} \times \frac{5}{8} \times 14\frac{1}{4}$ inches)
Rear panel: 85 (W) × 52.5 (H) × 13 (D) mm
($3\frac{3}{8} \times 2\frac{1}{8} \times 1\frac{7}{32}$ inches)



SVRM-100A

Remote control unit for the SVO-5800P, SVP-5600P and SVO-9500MDP

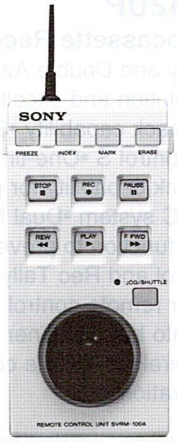
•Provides wired remote control operation for STOP/REC/PAUSE/REW/PLAY/FFWD •JOG/SHUTTLE operation •Enables ±10 times normal speed in search operation •Field freeze operation for SVO-5800P/ SVP-5600P

Features especially for the SVO-9500MDP

•Index search function •Three freeze mode: frame freeze, first field freeze and second field freeze

Specifications

Power requirements:	DC 5V (supplied from the VTR)
Power consumption:	40 mW
Remote control:	Stereo mini plug
Control signal:	Control S
Dimensions:	90 (W) × 39 (H) × 182 (D) mm (3 5/8 × 1 9/16 × 7 1/4 inches)
Mass:	250 g (8.8 lb)


SONY
FREEZE
INDEX
MARK
ERASE
STOP
REC
PAUSE
REW
PLAY
F FWD
JOG/SHUTTLE
REMOTE CONTROL UNIT SVRM-100A

DSRM-10

Remote Control Unit

•Designed to remotely control the S-VHS VTRs (SVO-9620/SVP-9020) UVW VTRs (UVW-1800P/UVW-1600P/ UVW-1200P), and DVCAM VTRs (DSR-85P/DSR-80P/DSR-60P)
•Provides wired remote control operation for STOP/REC/PAUSE/REW/PLAY/FFWD
•JOG/SHUTTLE operation
•Enables ±16 times normal speed in search operation

Specifications

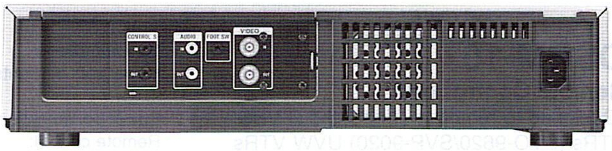
Power requirements:	DV 5V (supplied from the connected VTR)
Power consumption:	50mW
Remote control:	Stereo mini-plug (with attached cable, length 3m (10ft))
Dimensions:	90 (W) × 46 (H) × 182 (D) mm (3 5/8 × 1 13/16 × 7 1/4 inches)
Mass:	Approx. 360 g (12oz)
Supplied accessory:	Operating instructions

SONY
DSRM-10
REMOTE CONTROL UNIT
STOP
REC
PAUSE
REW
PLAY
F FWD
JOG/SHUTTLE

SVO-1320P

VHS Videocassette Recorder

•HQ circuitry and Double Azimuth PRO 4-head design for superb resolution and excellent colour reproduction •Auto repeat playback capability •Sequential playback by several VTRs via Control S •One-time playback capability •NTSC 4.43 playback capability for playback of materials recorded on the NTSC system •Dual Mode Shuttle (DMS) control •Key inhibit function to prevent accidental operation •Foot switch control and Rec Tally out •Index search •Control S terminals for remote control •BNC terminals •Digital auto tracking •Auto head cleaner •Hook hole for security •Supplied wireless remote commander RMT-V191B for remote operation



Supplied accessories:	Wireless Remote Commander RMT-V191B (1) Size AA batteries (2) AC power cord (1) Operation manual (1)

Specifications

General

Power requirements:	AC 220 to 240 V, 50 Hz
Power consumption:	14 W
Operating temperature:	5 to 40 °C (41 to 104 °F)
Storage temperature:	-20 to 60 °C (-4 to 140 °F)
Mass:	5.6 kg (12 lb 5 oz)
Dimensions:	430 (W) × 100 (H) × 360 (D) mm (17 × 4 × 14 ¼ inches)
Videocassette tape:	E-180/240
Recording/Playback mode:	
Recording	SP/LP mode (PAL/MESECAM)
Playback	SP/LP mode (PAL) SP/EP mode (NTSC : 4.43)
Tape speed:	
PAL	SP mode: 23.39 mm/sec. LP mode: 11.70 mm/sec.
NTSC 4.43 (Playback only)	SP mode: 33.35 mm/sec. EP mode: 11.12 mm/sec.
Fast forward/Rewind time:	Approx. 2.5 min. (with E-180)

Video

Video signal:	CCIR (monochrome) / PAL (colour)
Video recording system:	Rotary two-head helical scanning system, FM recording
Input:	BNC (1) (rear): 1.0 Vp-p, 75 Ω, unbalanced, sync negative
Output:	BNC (1) (rear): 1.0 Vp-p, 75 Ω, unbalanced, sync negative
S/N ratio:	44 dB (SP mode)
Horizontal resolution:	More than 240 lines (SP mode)

Audio

Audio recording system:	Monaural
Input:	PHONO (1) (rear) : -8 dBu, more than 47 kΩ
Output:	PHONO (1) (rear) : -8 dBu, less than 10 kΩ
Frequency response:	50 Hz to 10 kHz (Monaural/SP mode)
Distortion:	Less than 3.5 % (SP mode)

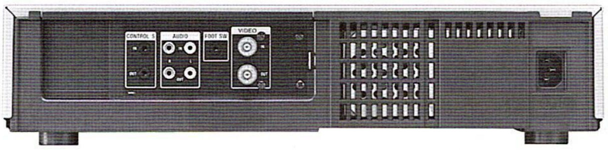
Other

Control S Input:	Mini jack (1)
Control S Output:	Mini jack (1)
Foot SW:	Stereo Mini jack (1)

SVO-1520P

VHS Videocassette Recorder

•HQ circuitry and Double Azimuth PRO 4-head design for superb resolution and excellent colour reproduction •VHS Hi-Fi stereo recording system •Auto repeat playback capability •Sequential playback by several VTRs via Control S •One-time playback capability •Power-on recording/ playback capability for unattended automatic VTR operation •Sensor recording capability •Audio dubbing function for the application of adding narration to a programme afterwards •NTSC 4.43 playback capability for playback of materials recorded on the NTSC system (Monaural only) •Dual Mode Shuttle (DMS) control •Key inhibit function to prevent accidental operation •Foot switch control and Rec Tally out •Index search •Control S terminals for remote control •BNC terminals •MIC In terminal •Digital auto tracking •Auto head cleaner •Hook hole for security •Supplied wireless remote commander RMT-V191B for remote operation



Supplied accessories:	Wireless Remote Commander RMT-V191B (1) Size AA batteries (2) AC power cord (1) Operation manual (1)

Specifications

General

Power requirements:	AC 220 to 240 V, 50 Hz
Power consumption:	14 W
Operating temperature:	5 to 40 °C (41 to 104 °F)
Storage temperature:	-20 to 60 °C (-4 to 140 °F)
Mass:	5.6 kg (12 lb 5 oz)
Dimensions:	430 (W) × 100 (H) × 360 (D) mm (17 × 4 × 14 ¼ inches)
Videocassette tape:	E-180/240
Recording/Playback mode:	
Recording	SP/LP mode (PAL/MESECAM)
Playback	SP/LP mode (PAL) SP/EP mode (NTSC : 4.43)
Tape speed:	
PAL	SP mode : 23.39 mm/sec. LP mode : 11.70 mm/sec.
NTSC 4.43 (Playback only)	
	SP mode : 33.35 mm/sec. EP mode : 11.12 mm/sec.
Fast forward/Rewind time:	
	Approx. 2.5 min. (with E-180)

Video

Video signal:	CCIR (monochrome) / PAL (colour)
Video recording system:	Rotary two-head helical scanning system, FM recording
Input:	BNC (1) (rear): 1.0 Vp-p, 75 Ω, unbalanced, sync negative
Output:	BNC (1) (rear): 1.0 Vp-p, 75 Ω, unbalanced, sync negative
S/N ratio:	44 dB (SP mode)
Horizontal resolution:	More than 240 lines (SP mode)

Audio

Audio recording system:	Hi-Fi / Monaural
Input:	PHONO (2) (L/R, rear) : -8 dBu, more than 47 kΩ
Output:	PHONO (2) (L/R, rear) : -8 dBu, less than 10 kΩ
Frequency response:	20 Hz to 20 kHz (Hi-Fi mode)
Dynamic range:	More than 86 dB (Hi-Fi mode)
Distortion:	Less than 0.5 % (Hi-Fi mode) Less than 3.5 % (Monaural/SP mode)

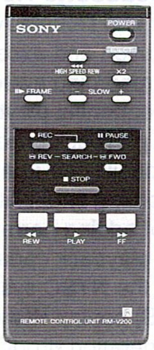
Other

Control S Input:	Mini jack (1)
Control S Output:	Mini jack (1)
Foot SW:	Stereo Mini jack (1)

RM-V200

Wired/wireless remote control unit

•VTR operation: STOP/PLAY/REC/PAUSE/FWD SEARCH/REW SEARCH/FF/REW/EJECT/POWER ON & OFF •High speed rewind button/ ×2speed playback/ frame advance operations for SVO-1500P •Either Control S or Control P control signal selectable


SONY
POWER
HIGH SPEED REW
X2
FRAME
– SLOW +
● REC
II PAUSE
REV – SEARCH – FWD
■ STOP
REW
PLAY
FF
REMOTE CONTROL UNIT RM-V200

Supplied accessories:	Size AA battery (2) Control S cable (3m) Control P cable (1.5m) Operation manual
Mass:	105 g (3 oz) excluding batteries
Dimensions:	65 (W) × 18 (H) × 150 (D) mm ($2^5/_8 \times 2^3/_{32} \times 6$ inches)
Power requirements:	DC 3V
Operating temperature:	5 to 45°C (41 to 113°F)
Control signal:	Control S (SIRCS) Control P (Inverted SIRCS)

5-5 VHS Hi-Fi duplicators

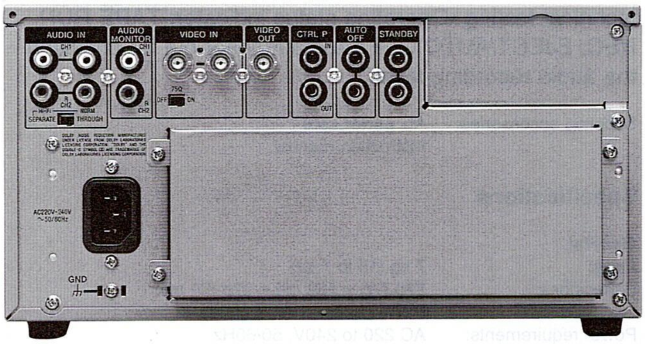
SVO-965P

VHS Hi-Fi

VHS Hi-Fi duplicator for recording/playback

•Provides both recording and playback modes •High cocentration of Silicon is incorporated in the lower drum for improved wear durability •Long-life video Hi-Fi head •High quality picture and sound by wide video/audio track design •Quality construction and durable mechanism for highly reliable operation •Low power consumption of 25W •Compact size and lightweight •Control P IN/OUT connectors for loop-through connection •Loop-through audio/video connectors for simpler system connection •Control S IN connector for VTR operation checking •Automatic check function for reliable recording results (operated from SVRM-911/SVRM-960) •Data set function: VTR ID SET, ID code REC ON/OFF, ID code display ON/OFF, video AGC ON/OFF, audio limiter ON/OFF, Hi-Fi REC ON/OFF etc. •Auto off function for technical difficulties •Convenient front test terminals for easy technical testing •Operation status indicator: TAPE RUN, REC, EJECT/ AUTO OFF

SONY
EJECT
TAPE RUN
REC
EJECT AUTO OFF
DUPLICATOR SVO-965P
POWER
0 0 9 6 5



Supplied accessories:	AC power cord Instruction manual

Specifications

General

Mass:	7 kg (15 lb 7 oz)
Dimensions:	270 (W) × 132 (H) × 370 (D) mm ($10\frac{3}{4} \times 5\frac{1}{4} \times 14\frac{5}{8}$ inches)
Power requirements:	AC 220 to 240V, 50/60Hz
Power consumption:	25W
Storage temperature:	–20 to 60°C (–41 to 140°F)
Operating temperature:	5 to 40°C (41 to 104°F)
Tape speed:	23.39 mm/s (SP mode)
F FWD and REW time:	Within 2.5min (with Sony E-180 tape)
Videocassette:	VHS standard cassette tapes

System

Video signal system:	CCIR standard/PAL colour
Video recording system:	Rotary two-head Azimuth recording, VHS standard Luminance: FM recording Colour signal: Converted subcarrier phase shift recording
Audio recording system:	Hi-Fi audio: Rotary two-head helical scanning system Normal audio: Stationary head

Video

Input:	Composite video: BNC with loop-through output, 1Vp-p, 75Ω switchable, unbalanced, sync negative
Output:	Composite video: BNC, 1Vp-p, 75Ω, unbalanced, sync negative
Horizontal resolution:	More than 240TV lines
S/N ratio:	Better than 44dB

Audio

Input:	SEPARATE/THROUGH switch selectable* Hi-Fi (CH-1/CH-2): Phono (2) Normal (CH-1/CH-2): Phono (2)
Audio level:	–10dBu, 47kΩ, unbalanced
Output:	Phono (2)
Audio level:	–10dBu, 47kΩ, unbalanced
S/N ratio (Dolby off):	43dB (Normal audio)
Dynamic range:	Better than 90dB (Hi-Fi audio)
Frequency response:	Normal: 50Hz to 10kHz Hi-Fi: 20Hz to 20kHz
Audio level adjustment:	Manual (4ch) Limiter on/off selectable (Normal audio)

Remote control

Control S:	IN: Mini jack
Control P:	IN: Phono OUT: Phono

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* When switch is in THROUGH position, loop-through output is available

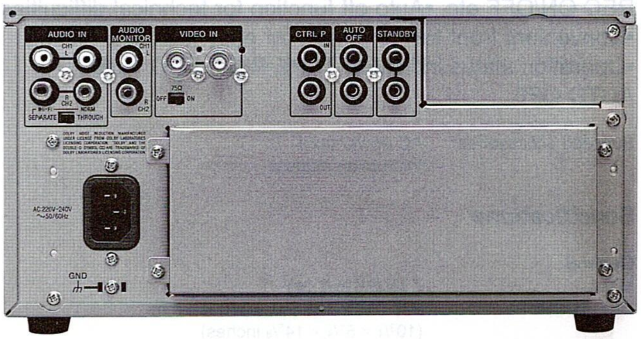
SVO-915P

VHS Hi-Fi

VHS Hi-Fi duplicator for recording

•Provides recording mode only for large size duplication system •High concentration of Silicon is incorporated in the lower head drum scanner for improved wear durability •Long-life video/Hi-Fi head •Quality construction and durable mechanism for highly reliable operation •High quality picture and sound by wide video/audio track design •Low power consumption of 25W •Compact and light-weight •Control P IN/OUT connectors •Loop-through audio/video connectors for simple system connection •Control S IN connector for VTR operation checking •Data set function: VTR ID SET, ID code REC ON/OFF, ID code display ON/OFF,video AGC ON/OFF, audio limiter ON/OFF, Hi-Fi REC ON/OFF, Dolby NR ON/OFF etc. •Auto off function for technical difficulties •Convenient front test terminals for easy technical testing •Operation status indicator: TAPE RUN, REC, EJECT/AUTO OFF •Audio monitor out for checking the audio recording level

SONY
EJECT
TAPE RUN
REC
EJECT AUTO OFF
DUPLICATOR SVO-915P
POWER



Supplied accessories:	AC power cord Instruction manual

Specifications

General	
Mass:	7 kg (15 lb 7 oz)
Dimensions:	270 (W) × 132 (H) × 370 (D) mm (10¾ × 5¼ × 14⅝ inches)
Power requirements:	AC 220 to 240V, 50/60Hz
Power consumption:	25W
Storage temperature:	–20 to 60°C (–41 to 140°F)
Operating temperature:	5 to 40°C (41 to 104°F)
Tape speed:	23.39 mm/s (SP mode)
F FWD and REW time:	Within 2.5min (with Sony E-180 tape)
Videocassette:	VHS standard cassette tapes
System	
Video signal system:	CCIR standard/PAL colour
Video recording system:	Rotary two-head Azimuth recording, VHS standard Luminance: FM recording Colour signal: Converted subcarrier phase shift recording
Audio recording system:	Hi-Fi audio: Rotary two-head helical scanning system Normal audio: Stationary head
Video	
Input:	Composite video: BNC with loop-through output, 1Vp-p, 75Ω switchable, unbalanced, sync negative
Horizontal resolution:	More than 240TV lines
S/N ratio:	Better than 44dB
Audio	
Inputs:	SEPARATE/THROUGH switch selectable* Hi-Fi (CH-1/CH-2): Phono (2) Normal (CH-1/CH-2): Phono (2)
Input level:	–10dBu, 47kΩ, unbalanced
Outputs:	Phono (2)
Output level:	–10dBu, 47kΩ, unbalanced
S/N ratio (Dolby off):	43dB (Normal audio)
Dynamic range:	Better than 90dB (Hi-Fi audio)
Frequency response:	Normal: 50Hz to 10kHz Hi-Fi: 20Hz to 20kHz
Audio level adjustment:	Manual (4ch) Limiter on/off selectable (Normal audio)
Remote control	
Control S:	IN: Mini jack
Control P:	IN: Phono OUT: Phono

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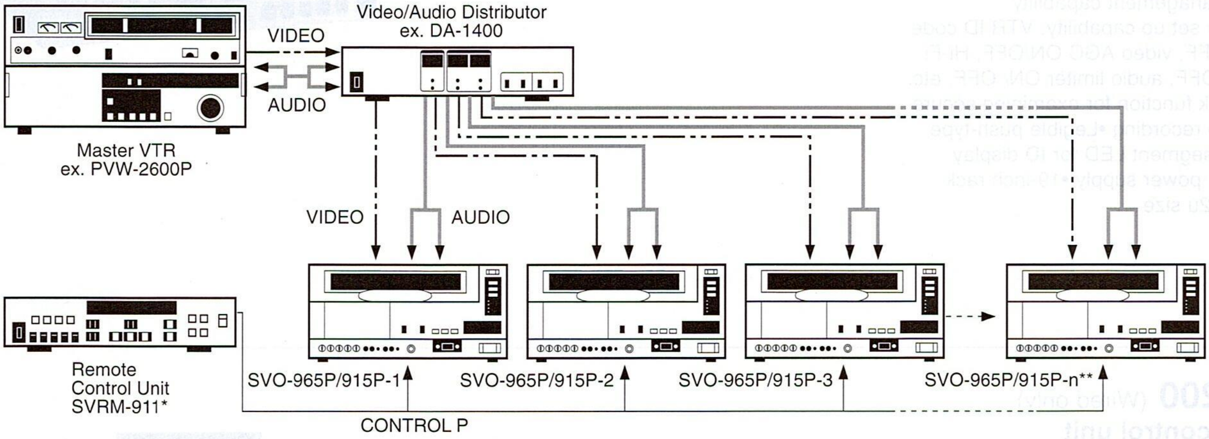
* When switch is in THROUGH position, loop-through output is available

5-5 VHS Hi-Fi duplicators

System Configuration

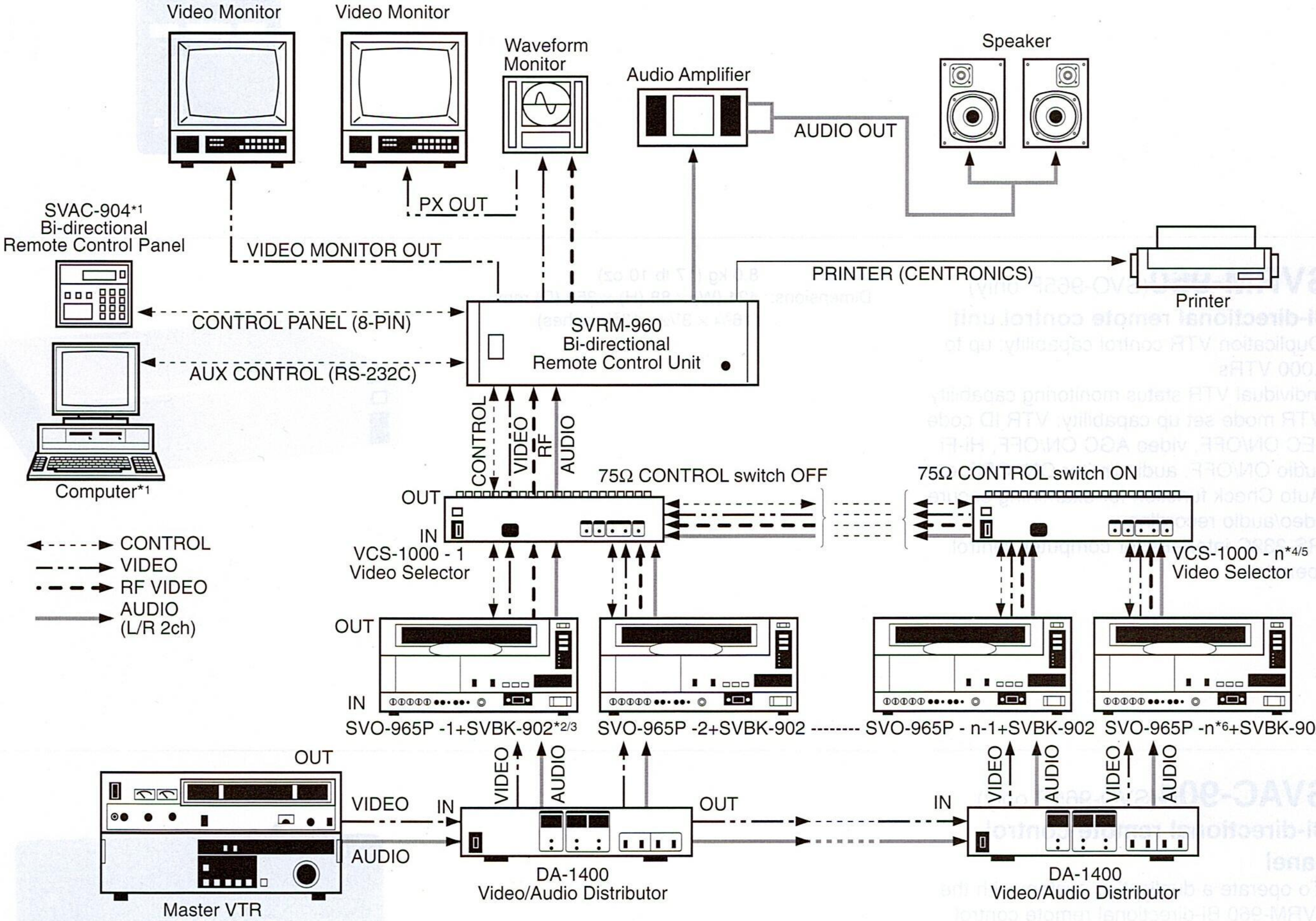
• Controlled by the SVRM-901


Video/Audio Distributor
ex. DA-1400
VIDEO
AUDIO
Master VTR
ex. PVW-2600P
VIDEO
AUDIO
Remote
Control Unit
SVRM-911*
SVO-965P/915P-1
SVO-965P/915P-2
SVO-965P/915P-3
SVO-965P/915P-n**
CONTROL P

* RM-V200 Remote Control Unit can also be used for a master remote control unit.

** Up to 2000VTRs can be connected.

• Controlled by the SVRM-960 (SVO-965P only)


Video Monitor
Video Monitor
Waveform
Monitor
Audio Amplifier
Speaker
AUDIO OUT
PX OUT
VIDEO MONITOR OUT
PRINTER (CENTRONICS)
Printer
SVAC-904*1
Bi-directional
Remote Control Panel
CONTROL PANEL (8-PIN)
SVRM-960
Bi-directional
Remote Control Unit
AUX CONTROL (RS-232C)
Computer*1
CONTROL
VIDEO
RF
AUDIO
75Ω CONTROL switch OFF
75Ω CONTROL switch ON
OUT
IN
VCS-1000 - 1
Video Selector
VCS-1000 - n*4/5
Video Selector
CONTROL
VIDEO
RF VIDEO
AUDIO
(L/R 2ch)
OUT
IN
SVO-965P -1+SVBK-902*2/3
SVO-965P -2+SVBK-902
SVO-965P - n-1+SVBK-902
SVO-965P -n*6+SVBK-902
OUT
VIDEO
AUDIO
IN
VIDEO
AUDIO
OUT
IN
VIDEO
AUDIO
VIDEO
AUDIO
Master VTR
ex. PVW-2600P
DA-1400
Video/Audio Distributor
DA-1400
Video/Audio Distributor

*1 VTR control can be operated either from the SVAC-904 or an external computer.
*2 SVBK-902 Bi-directional Interface Board (optional) must be installed in the SVO-965P.
*3 Set the 75Ω switch on all the SVBK-902 used in a system to OFF.

*4 Set the 75Ω switch on the last VCS-1000 to ON.
*5 Up to 50 VCS-1000 can be connected.
*6 Up to 1000 VTRs can be connected.

5-6 Optional accessories for SVO-965P/915P

SVRM-911

Serial remote control unit

•Control P out connectors for controlling entire duplication VTRs: up to 2,000 VTRs
•System management capability
•VTR mode set up capability: VTR ID code REC ON/OFF, video AGC ON/OFF, Hi-Fi Audio ON/OFF, audio limiter ON/ OFF, etc.
•Auto Check function for examining secure video/audio recording •Legible push-type buttons •7-segment LED for ID display
•Built-in AC power supply •19-inch rack mountable/2u size

RM-V200 (Wired only)

Remote control unit

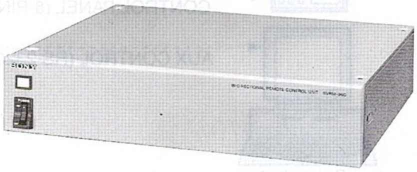
•For simple control of one VTR
•Equipped with control P/S select switch
•Duplication control capability via control P output

SVRM-960(SVO-965P only)

Bi-directional remote control unit

•Duplication VTR control capability: up to 1,000 VTRs
•Individual VTR status monitoring capability
•VTR mode set up capability: VTR ID code REC ON/OFF, video AGC ON/OFF, Hi-Fi Audio ON/OFF, audio limiter ON/ OFF, etc.
•Auto Check function for examining secure video/audio recording
•RS-232C interface for computer control operation

Mass: 8.0 kg (17 lb 10 oz)
Dimensions: 424 (W) × 88 (H) × 350 (D) mm ($16^3/_4 \times 3^1/_2 \times 13^7/_8$ inches)

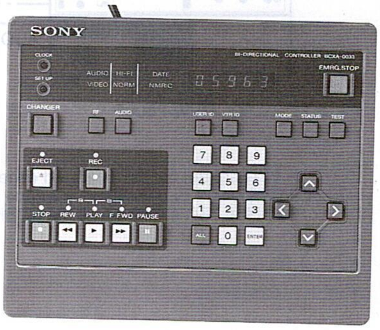


SVAC-904(SVO-965P only)

Bi-directional remote control panel

•To operate a duplication system with the SVRM-960 Bi-directional remote control unit

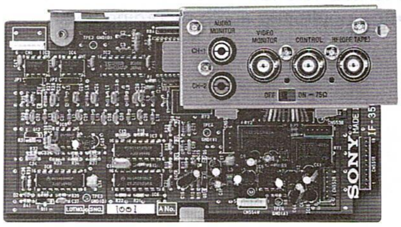
Mass: 0.8 kg (1 lb 12 oz)
Dimensions: 180 (W) × 53 (H) × 220 (D) mm ($7^1/_8 \times 2^1/_8 \times 8^3/_4$ inches)



SVBK-902(SVO-965P only)

Bi-directional interface board

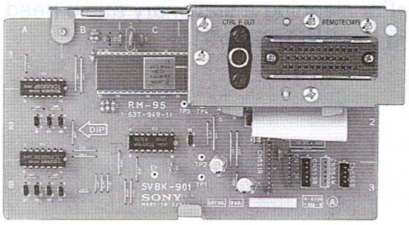
- To enable two way communication between duplication VTRs and the SVRM-960



SVBK-901

34-pin parallel interface board

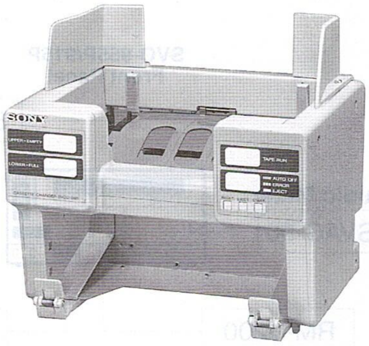
- To meet 34-pin based control system
- Control P serial control signal output connector



SVCC-960

Automatic cassette changer

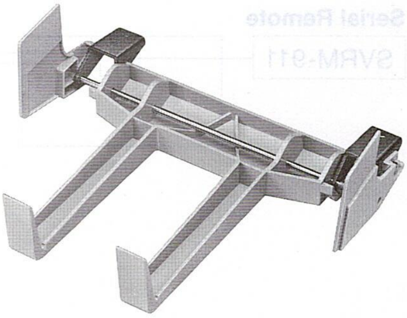
- Automatic cassette loading and ejecting for efficient duplication operation: Up to 5 cassettes



SVAC-902

Cassette holder

- To hold cassettes ejected by the SVCC-960
- Using with the SVCC-960

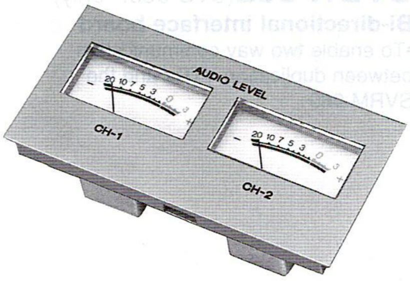


5-6 Optional accessories for SVO-965P/915P

SVAC-901

Audio meter

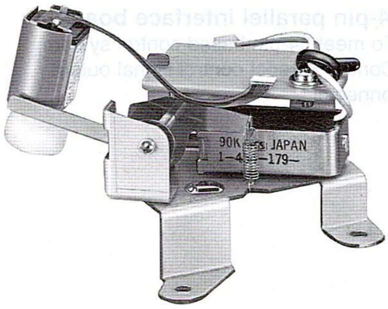
- For monitoring audio recording level


AUDIO LEVEL
CH-1
CH-2
20 10 7 5 3 0 3

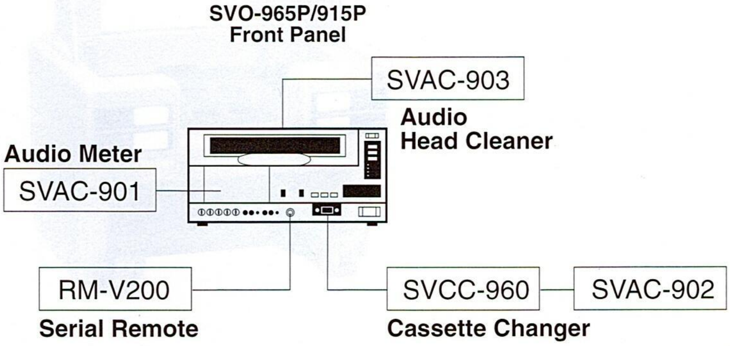
SVAC-903

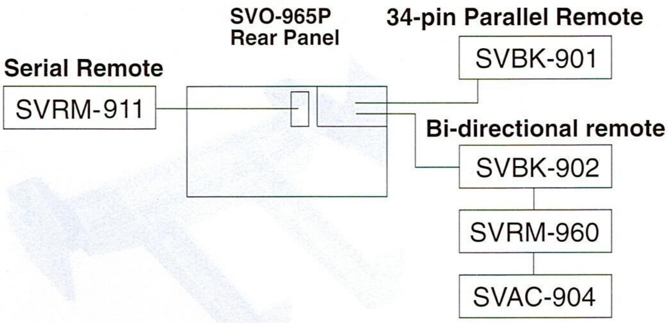
Audio head cleaner

- For cleaning a stationary audio head in the SVO-965P/915P


90K JAPAN
1-4 -179-

Optional Accessory Allocations


SVO-965P/915P
Front Panel
SVAC-903
Audio
Head Cleaner
Audio Meter
SVAC-901
RM-V200
Serial Remote
SVCC-960
SVAC-902
Cassette Changer


SVO-965P
Rear Panel
34-pin Parallel Remote
SVBK-901
Serial Remote
SVRM-911
Bi-directional remote
SVBK-902
SVRM-960
SVAC-904

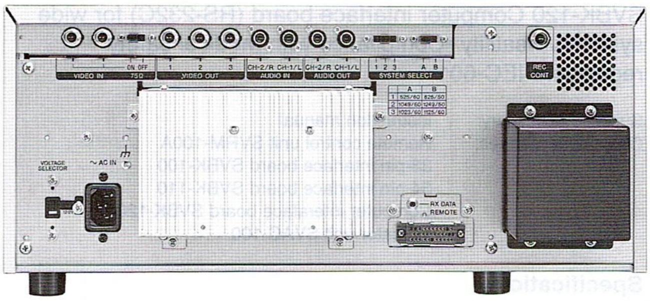
VO-9600H

High resolution B/W videocassette recorder

*Production of this product has been discontinued. For details, please consult your nearest Sony office.

•High quality picture reproduction by utilizing the SP U-matic technology •Multiple scanning system for universal applications •Clear still picture •REC standby function for immediate recording operation •High speed picture search in the range of ±30 times normal speed by a Search Dial •Control S IN and Sony 33-pin remote interface to meet a wide range of applications •Quick start function for immediate VTR operation •Three video out connectors for easy system expansion •Audio recording capability •Real time counter •Compliance with medical safety regulations: UL-544 and IEC-601-1

SONY
VIDEOCASSETTE RECORDER VO-9600H



Supplied accessories:	KSP-60 SP U-matic videocassette Instruction manual AC power cord

Specifications

General

Recording system:	Two rotary heads helical scanning system
Scanning system (lines/Hz):	525/60, 625/50, 1023/60, 1049/60, 1125/60, 1249/50 selectable
Operating temperature:	5 to 40°C (41 to 104°F)
Power requirements:	AC 220 to 240V
Power consumption:	Less than 70W
Dimensions:	424 (W) × 192 (H) × 544 (D) mm ($16^3/_4 \times 7^5/_8 \times 21^1/_2$ inches)
Mass:	7.5 kg (16 lb 9 oz)

Video signal

Input:	1.0Vp-p, 75Ω (with termination switch), sync negative
Output:	1.0Vp-p, 75Ω, sync negative
S/N ratio & Horizontal resolution:	46dB, 480 lines (525/60) 43dB, 480 lines (625/50) 46dB, 240 lines (1023/60) 46dB, 240 lines (1049/60) 46dB, 220 lines (1125/60) 43dB, 240 lines (1249/50)

Audio signal

Input (0dBu=0.775Vrms):	LINE IN: –10dBu, 47kΩ, unbalanced MIC IN: –60dBu, 3kΩ, unbalanced –10dBu, 47kΩ, unbalanced
Output (0dBu=0.775Vrms):	LINE OUT: –5dBu at 47kΩ, unbalanced Headphones: –24dBu to –46dBu at 8Ω headphones
S/N ratio:	48dB
Frequency response:	50Hz to 15kHz

Tape transport

Tape speed:	9.53 mm/s
REC/PB time:	60min
Videocassette:	KSP/KSP-S series videocassette

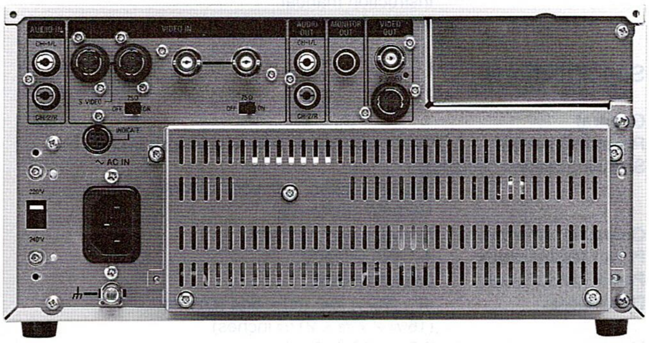
SVO-9500MDP

S-VHS

S-VHS videocassette recorder

•High quality picture and sound by S-VHS format and wide video/audio track design •Digital Chroma Noise Reducer (CNR) to provide highly stable picture •Clear and crisp freeze pictures in either frame or field mode thanks to built-in digital frame memory •Quality construction and durable mechanism for highly reliable operation •Quick response mechanism for immediate operation •±10 times picture search •Blank search function for quick searching of blank part on the tape •Index search function for rapid point location •Programmed operation •Tape remain indicator to show the amount of tape remaining •Auto head cleaner •Compact size and lightweight •Hi-Fi stereo audio recording system •Hi-Fi ON/OFF switch •VTR mode setting menu •SVRM-100A optional remote control unit •SVBK-100 33-pin interface board/SVBK-110 34-pin interface board/ SVBK-120 Computer interface board (RS-232C) for wide system versatility •Compliance with medical safety regulation: IEC-601-1

SONY
VIDEOCASSETTE RECORDER SVO-9500MDP
S-VHS Hi-Fi
EJECT
REC
STOP
REW
PLAY
F FWD
PAUSE
REV
FWD
BLANK
FREEZE
SEARCH
0 0 0 0 0



Supplied accessory:	Instruction manual
Optional accesories:	Remote control unit SVRM-100A 33-pin interface board SVBK-100 34-pin interface board SVBK-110 Computer interaface board SVBK-120 Indicator unit SVAC-100

Specifications

General

Video recording system:	Two rotary heads helical scanning system
Video signal system:	CCIR monochrome/PAL colour
Operating temperature:	5 to 40°C (41 to 104°F)
Power requirements:	AC 220V/240V (selectable), 50/60Hz
Power consumption:	Less than 64W
Dimensions:	270 (W) × 144 (H) × 370 (D) mm ($10\frac{3}{4} \times 5\frac{3}{4} \times 14\frac{5}{8}$ inches)
Mass:	12 kg (26 lb 7 oz)

Video signal

Input:	BNC: 1.0Vp-p, 75Ω, sync negative S-VIDEO: Mini DIN 4-pin Y: 1.0Vp-p, 75Ω, C: 0.3Vp-p, 75Ω
Output:	BNC: 1.0Vp-p, 75Ω, sync negative S-VIDEO: Mini DIN 4-pin Y: 1.0Vp-p, 75Ω, C: 0.3Vp-p, 75Ω
S/N ratio:	Better than 45dB

Audio signal

Input:	LINE IN: CH-1/CH-2: –10dBu, 47kΩ, unbalanced Microphone: CH-2: –60dBu, 3kΩ, unbalanced
Output:	LINE OUT: CH-1/CH-2: –10dBu, 47kΩ, unbalanced Monitor out: –5dBu, 47kΩ, unbalanced
S/N ratio:	40dB (standard)
Dynamic range:	Better than 90dB (Hi-Fi)
Frequency response:	50Hz to 10kHz (standard), 20Hz to 20kHz (Hi-Fi)

Tape transport

Tape speed:	23.39 mm/s
F FWD and REW time:	2.5min (E-180)
Videocassette:	VHS standards cassette tapes

SECTION 2 VIDEO CAMERAS

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DXC-D30P series

3-chip colour video camera

•Incorporates DSP(Digital Signal Processing) technology based on the TruEye™ •Directly dockable to analogue recorders (PVV-3P and EVV-9000P) •Directly dockable to the DSR-1P DVCAM Digital Recorder •Compact size, lightweight and low power consumption •High density three 2/3-inch IT Power HAD sensors and the new digital signal processing circuits offer superior picture quality
— 850 TV lines of horizontal resolution
— Excellent signal-to-noise ratio of 61dB
— High sensitivity of F11.0 at 2000 lx
— Smear level -125dB
•TruEye Process realizes faithful color reproduction •High degree of stability in video output (offered by DSP) •Uniformity of picture tone among multiple DXC-D30P units (offered by DSP) •Skin Detail with auto detection system of active area •Horizontal detail frequency control •Red vertical detail correction •New DCC Plus function on the basis of DynaLatitude processing - for ideal video level distribution in any situations •Clean Detail by DSP provides Black Halo-free natural lines •Clear Scan function for shooting computer displays without horizontal bands appearing across display screen •Hyper Gain mode provides the combined effect of +30dB of electronic gain-up and +6dB of DPR (Dual Pixel Readout) under 1 lux illumination •DPR (Dual Pixel Readout) technology realizes noiseless picture even when gain value is increased •TLCS (Total Level Control System) to ensure the correct exposure even under/ over the limits of automatic iris control •Intelligent Auto Iris control function •EZ Mode and EZ Focus functions enable cameramen to get ready for shooting swiftly •Easy-to-use File Management System (Five factory files and three user files available) •The 10-pin REMOTE connector (RS-232C standard) allows control from external computers •ATW (Auto Tracing White Balance) function automatically adjusts white balance when lighting conditions change •Programmable gain mode allows precise gain selection from 8 gain values •Three mode auto iris system- STD (Standard), BACK L(Back Light) and SPOT L(Spot Light) •DCC (Dynamic Contrast Control) circuit can reproduce 600% dynamic range •Variable Speed Electronic Shutter •Clear Scan•Supplies a 1kHz audio reference signal simultaneously with the colour bar signal •Date and time can be superimposed on the video signal •Directly dockable with DSR-1P DVCAM Digital Recorder (Refer to the description of the DSR-130P) •Directly dockable with the PVV-1AP/3P for high quality component acquisition (Refer to the description of PVW-D30P) or with the EVV-9000P for handy operation •Can be combined with the recorders from Panasonic or JVC via the CA-512AP or CA-513 •When combined with CA-537P/327P, 26/14-pin connectors provides signal output in Y/R-Y/B-Y, VBS, Y/C and RGB forms for connection with various equipement •Can be connected with computer equipment via CA-325A/325B camera adaptor •Adjustable shoulder pad •Monitor out function

Supplied accessories:	Wind screen Lens mount cap Chart for flange focal Operating instructions

Camera adaptor is optional

Specifications

General

Image device:	2/3–inch Interline Transfer CCD (×3) 795(H) × 596(V) total picture elements 752(H) × 582(V) effective picture elements
Built-in filters:	1: 3200K, 2: 5600K + 1/8ND, 3: 5600K, 4: 5600K+1/64ND
Lens mount:	Bayonet-mount
Video signal system:	PAL standard
Sync system:	Internal or external with VBS or BS
Horizontal resolution:	850TV lines
Minimum illumination:	0.5 lx with F1.4, Hyper Gain (DPR+30dB) 0.8 lx with F1.8, Hyper Gain (DPR+30dB)
Sensitivity:	F11.0 at 2000 lx (3200K, 89.9% reflectance)(typical)
Gain selection:	–3dB, 0dB, +3dB, +6dB, +9dB, +12dB, +18dB, * DPR+18dB, +24dB, * DPR+24dB, Hyper Gain (* DPR+30dB)
S/N ratio:	61dB (typical)
Power requirements:	DC12V
Power consumption:	12W (without VF/CA-537P)
Operating temperature:	–10 to 45˚C (14 to 113˚F)
Mass:	Approx. 2.3 kg (5 lb 1 oz, for camera head only) Approx. 4.5 kg (9 lb 15 oz, with VF and lens, w/o lens hood)

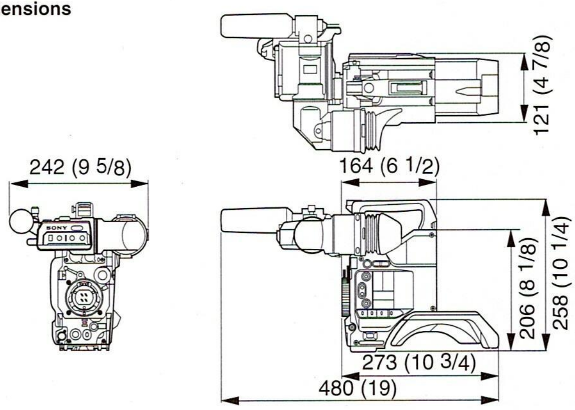
Inputs/outputs

INTERFACE:	Pro 50-pin, Pro 76 pin DIGITAL
VIDEO OUT:	BNC type
LENS:	12-pin
VF:	DIN 8-pin, 20 pin
REMOTE:	10-pin, stereo mini
MONITOR OUT:	BNC type

* DPR = +6dB, DPR +18dB = +24dB, DPR+24dB = +30dB, DPR+30dB = +36dB

	DXC-D30PF1	DXC-D30PK1	DXC-D30PL1	DXC-D30PH
Camera head	Yes	Yes	Yes	Yes
Camera handle	Yes	Yes	Yes	Yes
DXF-701WSCE Viewfinder	Yes	Yes	Yes	Option
External microphone	Yes	Yes	Yes	Not available
VCT-U14 Tripod adaptor	Yes	Yes	Yes	Option
VCL-918BY Zoom lens	Yes	Yes	Option	Option
LC-421 Carrying case	Yes	Option	Option	Option
RM-LG1 Logger	Yes	Yes	Yes	Option

Dimensions



DXC-D30WSP

Wide-screen switchable colour video camera

• Aspect ratio is switchable (16:9 wide screen or 4:3) •All the functions of the DXC-D30P are incorporated •Power HAD WS CCD •16:9 ID information is included (DVCAM system such as DSR-1/60/80 detects 16:9 ID and can record or play back the 16:9 video signal)

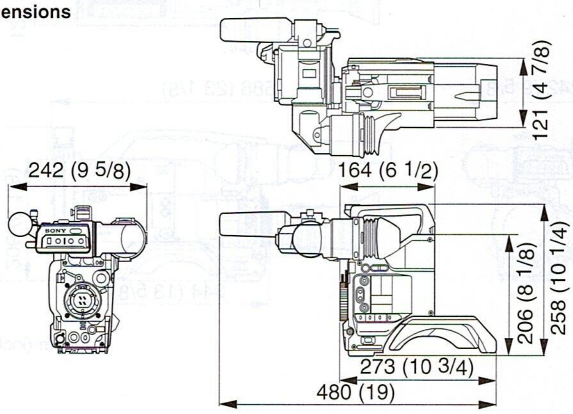
*Camera adaptor is optional

Supplied accessories:	Remote Control Unit RM-LG1 Viewfinder DXF-701WSCE (incl. Mic holder) External microphone (incl. Mic. cable) Wind Screen Tripod adaptor VCT-U14 Angle plate for the DXC-D30WSP Lens cap Flange back chart Operation manual for the DXC-D30P Operation manual supplement for the DXC-D30WSP ClipLink Guide

Specifications:

Image device:	3-chip 2/3-inch, Interline-Transfer CCD
Optics:	F1.4 medium index prism system
Effective picture elements:	980 × 582 (H × V)
Total picture elements:	1038 × 594 (H × V)
Sensing area:	9.6 mm × 5.4 mm
Built-in filters:	1: 3200K/3000K 2: 5600K+1/8ND 3: 5600K 4: 5600K+1/64ND
Lens mount:	Sony 2/3-inch Bayonet mount
Signal system:	PAL colour system
Scanning system:	2:1 interlaced, 625 lines, 50 fields/s
Horizontal frequency:	15.625 kHz
Vertical frequency:	50 Hz
Sync system:	Internal and External with the VBS or BS signal
Horizontal resolution:	16:9 mode: 700TV lines 4:3 mode: 700TV lines
Vertical resolution:	480TV lines (without EVS) 530TV lines (with EVS)
Minimum illumination:	0.5 lx with F1.4, Hyper gain (30dB+DPR) 0.8 lx with F1.8, Hyper gain (30dB+DPR)
Sensitivity:	F11 at 2000 lx (3200K, 89.9% reflectance) (typical)
Gain selection:	-3dB, 0dB, 3dB, 6dB, 9dB, 12dB, 18dB, 18dB+DPR, 24dB, 24dB+DPR, Hyper Gain (30dB+DPR)
Shutter speed selection:	OFF, 1/60, 1/250, 1/500, 1/1000, 1/2000 s
Clear scan selection:	50.3 to 201.4Hz
Signal-to-noise ratio:	61dB (typical)
Registration:	0.05% (all zones, without lens)
Geometric distortion:	Below measurable level
Video output:	Camera head BNC connector: VBS: 1.0 Vp-p, sync negative 26-pin connector of CA-537/P docked to DXC-D30WS/P VBS: 1.0Vp-p, sync negative Y/R-Y/B-Y: Y: 1.0Vp-p, sync negative R-Y/B-Y: 525mVp-p RGB: 1.4Vp-p Y/C: Y: 1.0Vp-p, sync negative C: 300mVp-p (burst level)
Inputs/ Outputs:	INTERFACE: Pro76-pin DIGITAL, Pro 50-pin VIDEO OUT: BNC-type MONITOR OUT: BNC-type LENS: 12-pin VF: DIN 8-pin, 20-pin REMOTE 1: Stereo mini REMOTE 2: 10-pin
Power requirements:	DC 12V (10.5 to 17V)
Power consumption:	14.9W (without VF) 15.3W (when docked with the DSR-1/P) 17W (with VF)
Operating temperature:	-10˚C to 45˚C (14˚F to 113˚F)
Storage temperature:	-20˚C to 60˚C (-4˚F to 140˚F)
Mass:	Approx. 2.5 kg (5 lb 8 oz) for camera head only Approx. 3.3 kg (7 lb 4 oz) with VF and microphone
Dimensions:	121 (W) × 206 (H) × 273 (D) mm (4 7/8 × 8 1/8 × 10 3/4 inches) (without projections)
Note	DPR is equivalent to +6dB gain up. 18dB+DPR: Equivalent to +24dB 24dB+DRR: Equivalent to +30dB Hyper Gain (30dB+DPR): Equivalent to +36dB

Dimensions



DSR-130P

Digital Camcorder

•Combination of the DXC-D30P Digital Video Camera and the DSR-1P DVCAM Dockable Recorder, equivalent to one-piece camcorder •Compact and lightweight: 7.5 kg (16 lb 8 oz) including a viewfinder, microphone, lens, battery, tape and carrying handle •DSP (Digital Signal Processing) •Three 2/3-inch Power HAD™ CCDs for low smear level, high sensitivity and high S/N ratio •Superb picture quality of the DVCAM format •Playback capability of consumer DV recorded tapes (SP mode only) •Long recording time; up to 184 minutes with a standard cassette and 40 minutes with a mini cassette •ClipLink™ operation •TrueEye™ process for faithful colour reproduction •DynaLatitude™ •Skin Detail with auto detection of active area •Black halo-free, Clean Detail •Camera Setup File system •SetupNavi™ function for Camera Setup File storage •SetupLog™ function for automatic recording of camera setting data •Total Level Control System (TLCS) for automatically extended range of light control •EZ Focus and EZ mode for quick camera setup •Auto Tracing White Balance (ATW) function •Adjustable Black Stretch and Compress •Dual Zebra viewfinder indication of over exposure •Time code superimposed during playback •Edit Search function •Freeze Mix function

Specifications

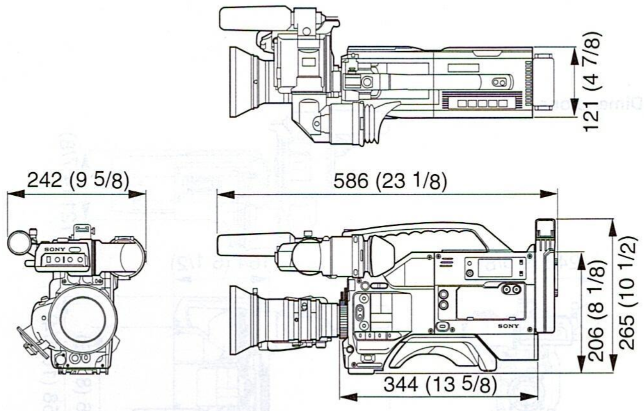
DSR-130P Camcorder

Power consumption:	24.8W (with DXF-701WSCE Viewfinder)
Mass:	7.5 kg (16 lb 8 oz) (incl. DXF-701WSCE viewfinder, microphone, VCL-918BY lens, NP-1B battery, videocassette, carrying handle)
Operating time:	60 min.
Dimensions (w/h/d):	121 × 206 × 344 mm (4 7/8 × 8 1/8 × 13 5/8 inches)

Product Configurations

	DSR-130PF1	DSR-130PK1	DSR-130PL1
DXC-D30P Camera head	Yes	Yes	Yes
DSR-1P Recorder	Yes	Yes	Yes
Handle for DSR-130P	Yes	Yes	Yes
DXF-701WSCE Viewfinder	Yes	Yes	Yes
External microphone	Yes	Yes	Yes
Shoulder step	Yes	Yes	Yes
VCT-U14 Tripod adaptor	Yes	Yes	Yes
VCL-918BY Zoom lens	Yes	Yes	Option
LC-421 Carrying case	Yes	Option	Option
RM-LG1 Logger Unit	Yes	Yes	Yes

Dimensions



Unit: mm (inches)

PVW-D30P series

Betacam SP camcorder

•Betacam SP Camcorder with digital signal processing camera: PVV-3P docked with DXC-D30P via the Pro 50-pin connector •Status information and messages of the PVV-3P (time code, recording audio level, remaining battery power, remaining tape time, etc.) can be superimposed on the viewfinder •Playback capability with VA-300P •Compact and light weight 8.3 kg (18 lb 5 oz) in operation •Low power consumption: approx. 24.1 W •Lightweight rugged magnesium diecast body •Large carrying handle for enhanced transportability and easier handling in low angle

BETACAM SP
SONY

Specifications

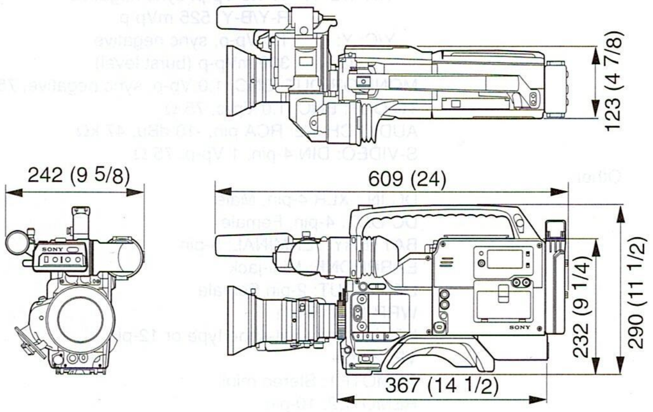
PVW-D30P Camcorder

Power consumption:	24.1W (with DXF-701WSCE Viewfinder)
Mass:	8.3 kg (18 lb 5 oz) (incl. DXF-701WSCE viewfinder, microphone, VCL-918BY lens, NP-1B battery, videocassette, carrying handle)
Operating time:	60 min.
Dimensions (w/h/d):	123 × 232 × 367 mm (4 ⅞ × 9 ¼ × 14 ½ inches)

Component chart

	PVW-D30PF	PVW-D30PK	PVW-D30PL
DXC-D30P Camera head	Yes	Yes	Yes
PVV-3P Recorder	Yes	Yes	Yes
Handle for PVW-D30	Yes	Yes	Yes
DXF-701WSCE Viewfinder	Yes	Yes	Yes
External microphone	Yes	Yes	Yes
Shoulder strap	Yes	Yes	Yes
VCT-U14 Tripod adaptor	Yes	Yes	Yes
VCL-918BY Zoom lens	Yes	Yes	Option
LC-421 Carrying case	Yes	Option	Option
RM-LG1 Logger Unit	Yes	Yes	Yes

Dimensions



Unit: mm (inches)

DSR-300P

Digital Camcorder

•Highly mobile one-piece design •Compact and lightweight: 5.7 kg (12 lb 9 oz) including viewfinder, microphone, lens, battery and tape •Compact crew package with the LC-300SFT Soft Carrying Case •DynaFit™ shoulder pad for comfortable molding to any shoulder •DSP (Digital Signal Processing) •Three 1/2-inch Power HAD™ CCDs for low smear level, high sensitivity and high S/N ratio •Superb picture quality of the DVCAM format •Playback capability of consumer DV recorded tapes (SP mode only) •Long recording time; up to 184 minutes with a standard cassette and 40 minutes with a mini cassette •ClipLink operation •TruEye™ process for faithful colour reproduction •DynaLatitude™ •Skin Detail with auto detection of active area •SetupLog™ function for automatic recording of camera setting data •Total Level Control System (TLCS) for automatically extended range of light control •EZ Focus and EZ mode for quick camera setup •Auto Tracing White Balance (ATW) function •Adjustable Black Stretch and Compress •Dual Zebra viewfinder indication of over exposure •Video light connection for Anton Bauer® Ultra Light 2 •Menu control by Jog Dial operation •Time code superimposed during playback •Edit Search function •Freeze Mix function •26-pin VTR interface capability

*Optional items are included

SPECIFICATIONS

Power requirements: DC 12 V (11 to 17 V)
Power consumption: 20 W (w/o VF), 22.1 W (w VF)
Operating temperature: 0°C to 40°C (32°F to 104°F)
Storage temperature: -20°C to 60°C (-4°F to 140°F)
Operating humidity: Less than 85%
Storage humidity: Less than 90%
Tape speed: 28.193 mm/s
Recording/Playback time:
Standard size:184 min. PDV184ME
Mini size:40 min. PDVM40ME
Fast forward/Rewind time:
Standard size:Approx. 12 min. PDV184ME
Mini size: Approx. 3 min. PDVM40ME
Continuous recording time:
Approx. 80 min. BP-L40, Approx. 180 min. BP-L60A, Approx. 290 min. BP-L90A
Mass: Approx. 3.3 kg (7 lb 4 oz) for camera head only
Approx. 4.1 kg (9 lb 1 oz) with VF and microphone
Approx. 5.2 kg (11 lb 7 oz) with VF, microphone and lens
Approx. 5.7 kg (12 lb 9 oz) with VF, microphone, lens, battery (BP-L40) and videocassette tape
Dimensions (w/h/d): 121 × 192 × 270 mm (4 ⅞ × 7 ⅝ × 10 ¾ inches) (without projections)
242 × 247 × 534 mm (9 ⅝ × 9 ¾ × 21 ⅛ inches) (with projections)

CAMERA PART

Image device: 3-chip 1/2-inch, Interline Transfer CCD
Optics: F1.4 medium index prism system
Effective picture elements:
752 × 582 (H × V)
Total picture elements: 795 × 596 (H × V)
Sensing area: 6.4 mm × 4.8 mm
(equivalent to a 1/2-inch pickup tube)
Built-in filters: 1: 3200 K/3000 K (Switchable)
2: 5600 K+1/8 ND
3: 5600 K
4: 5600 K+1/64 ND
Lens mount: Sony 1/2-inch Bayonet mount
Signal system: PAL colour system
Scanning system: 2:1 interlaced, 625 lines,50 fields/sec.
Horizontal frequency: 15.625 kHz
Vertical frequency: 50 Hz
Sync system: Internal and external with the VBS or BS signal
Horizontal resolution: 800 TV lines
Vertical resolution: 480 TV lines (w/o EVS), 530 TV lines (w/EVS)
Minimum illumination: 0.5 lx with F1.4, Hyper gain (30 dB+ DPR)
0.8 lx with F1.8, Hyper gain (30 dB+ DPR)
Sensitivity: F 11 at 2000 lx (3200 K, 89.9% reflectance) (typical)
Gain selection: -3 dB, 0 dB, 3 dB, 6 dB, 9 dB, 12 dB,18 dB,18 dB+ DPR, 24 dB, 24 dB+ DPR, Hyper Gain(30 dB+ DPR)
Shutter speed selection: OFF, 1/60, 1/250, 1/500, 1/1000, 1/2000 sec
Clear scan selection: 50.3 to 201.4 Hz
Signal-to-noise ratio: 60 dB (typical)
Registration: 0.05% (all zones, without lens)
Geometric distortion: Below measurable level

VTR PART
VIDEO PERFORMANCE

Bandwidth: Luminance:25 Hz to 5.5 MHz +1.0/-2.0 dB
Chrominance:25 Hz to 2.0 MHz +1.0/-2.0 dB
S/N ratio: More than 55 dB
K-factor(K2T, KPB): Less than 2.0%
Y/C delay: Less than 30 nsec

AUDIO PERFORMANCE

Frequency response: 48 kHz: 20 Hz to 20 kHz +0.5/-1.0 dB
32 kHz: 20 Hz to 14.5 kHz +0.5/-1.0 dB
Dynamic range: More than 80 dB
Distortion (THD): Less than 0.08% (1 kHz reference level, 48 kHz)

INPUT/OUTOUT connectors

Signal inputs:
GENLOCK VIDEO IN: BNC, 1.0 Vp-p, 75 Ω
TC IN: BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ
EXT AUDIO CH-1/2: XLR 3-pin (2) Female, -60 dBu, 3 kΩ-/+4 dBu, 10 kΩ
MIC IN: XLR 3-pin Female
Signal outputs:
VIDEO OUT: BNC, 1.0 Vp-p, sync negative, 75 Ω
26-pin connector:
VBS: 1.0 Vp-p, sync negative
Y/R-Y/B-Y: Y: 1.0 Vp-p, sync negative
R-Y/B-Y: 525 mVp-p
Y/C: Y: 1.0 Vp-p, sync negative
C: 300 mVp-p (burst level)
MONITOR OUT: BNC, 1.0 Vp-p, sync negative, 75 Ω
TC OUT: BNC, 1.0 Vp-p, 75 Ω
AUDIO CH-1/2: RCA pin, -10 dBu, 47 kΩ
S-VIDEO: DIN 4-pin, 1 Vp-p, 75 Ω
Other:
DC IN : XLR 4-pin, Male
DC OUT: 4-pin, Female
BATTERY TERMINAL: 5-pin
EARPHONE: Mini-jack
LIGHT OUT: 2-pin Female
WRR OUT: 7-pin
LENS: 14-pin hot-shoe type or 12-pin
VF: 20-pin
REMOTE1: Stereo mini
REMOTE2: 10-pin

Notes: *DPR is equivalent to +6 dB gain up.
18 dB+ DPR: Equivalent to +24 dB
24 dB+ DRR: Equivalent to +30 dB
Hyper Gain (30 dB+ DPR): Equivalent to +36 dB

DSR-200AP

Digital Camcorder

•Compact and lightweight: 4.7 kg (10 lb 8 oz) including tape and battery holder with three battery packs •DSP (Digital Signal Processing) •Three 1/3-inch CCDs for accuracy of colour reproduction •Superb picture quality of the DVCAM format •Playback capability of consumer DV recorded tapes (SP mode only) •Long recording time; up to 184 minutes with a standard cassette* •Optical SteadyShot™ function for stable picture shooting without sacrificing picture quality •Time/date data superimposition on output pictures •Easy-to-use viewfinder, with high horizontal resolution •Photo mode and frame interpolation for recording clear frame picture for seven seconds •Audio dubbing capability (32 kHz/12-bit only) •Time code capability •i.LINK™ (DV In/Out) interface** based on the IEEE1394 standard •LANC interface for simple editing with a LANC-based recorder or editing system •RMT-807/806 Remote Controller (supplied) for control of basic functions

* The DSR-200AP accepts only standard DVCAM and DV cassettes.
** The model for European area has output only.

Supplied accessories:	Wireless Remote Commander RMT-807 (for European area) RMT-806 (for PAL areas except Europe) AV stereo cable S cable Lens cap Shoulder pad Side pad R6 Batteries (2) Operation manual

Specifications

LENS

Zoom:	10 × Zoom (f = 5.9 to 59 mm) (20 × Digital Zoom)
Filter diameter:	52 mm
Iris:	Auto/Manual (F1.6 to 11) and Close

CAMERA

Image device:	3 CCD 1/3-inch, Interline-Transfer Sensor
Picture elements:	752 (h) × 582 (v) (effective), 795 (h) × 596 (v) (total)
Signal system:	CCIR standard, PAL Colour system
Scanning system:	2:1 interlaced, 625 lines, 50 fields/sec.
Gain:	Auto/ Manual (-3, 0, 3, 6, 9, 12, 15, 18 dB)
Shutter control:	Auto/Manual (1/3, 1/6, 1/12, 1/25, 1/50, 1/100, 1/215, 1/425, 1/1000, 1/1750, 1/3500, 1/10000 sec.)
White balance:	ATW/One-push auto/5800 K/3200 K
Minimum illumination:	3 lx
Recommended illumination:	More than 100 lx
Viewfinder:	1-inch black and white CRT
Built-in microphone:	One-point stereo-type electret condenser microphone, directivity selectable (0°/90°/120°)
Built-in speaker:	Dynamic speaker

VTR

Tape speed:	Approx. 28.193 mm/s.(DVCAM mode)	
Maximum recording time:	184 minutes (with PDV-184ME)	
VIDEO:		
Video signal:	CCIR standard, PAL colour system	
Output:	Composite:	BNC (1), Pin jack (1), 1.0Vp-p, 75 Ω Sync negative
	S-Video:	4-pin mini-DIN connector (1)
	Y:	1.0 Vp-p, 75 Ω unbalanced
	C:	0.3 Vp-p (subcarrier burst), 75 Ω unbalanced

AUDIO

Audio signal:	REC:	48 kHz/16-bit, 32 kHz/12-bit,
	PB:	48 kHz/16-bit, 32 kHz/12-bit, 32 kHz/16-bit, 44.1 kHz/16-bit
Input:	XLR 3-pin (2) (MIC/LINE selectable) Stereo mini jack (1)	
Output:	PIN jack (2) (L, R)	

DIGITAL IN/OUT:	i.LINK(DV IN/OUT), IEEE1394-based, 4-pin (1)

OTHER CONNECTORS

LANC:	Stereo mini-mini jack (1)
Headphone jack:	Stereo mini jack (1)
RFU DC output:	Special mini jack (1) (DC 5 V)
External DC input:	4-pin for DK-715 cable
Viewfinder interface:	8-pin connector

GENERAL

Operating temperature:	0 °C to 40 °C (32 °F to 104 °F)
Storage temperature:	-20 °C to 60 °C (-4 °F to 140 °F)
Power requirement:	DC 7.2 V (Battery operation), DC 8.4 V (AC adaptor)
Power consumption:	11.6 W (during camera recording)
Dimensions (w × h × d):	216 × 237 × 474 mm (8 ⅝ × 9 ⅜ × 18 ¾ inches)
Mass:	Approx. 3.6 kg (7 lb 15 oz) (without a tape and batteries) Approx. 4.7 kg (10 lb 8 oz) (with a tape and three NP-F950/B in NPA-10000/B)

DSR-PD100P

Digital Camcorder

•Compact and handy:1 kg(2.2 lb)with a battery and a tape •Superb picture quality of the DVCAM format •1/4-inch 3CCDs:progressive/interlace scan switchable •Still image recording on both tape or removable media, such as Memory Stick™ •Super SteadyShot™ function with new optical system •Extreme close-up shots with x48 digital and x12 optical zoom •Manual Control and Full Range Auto modes •Switchable 4:3 and 16:9 recording modes •Playback capability of consumer DV recorded tapes(SP mode only) •i.LINK(DV In/Out) interface based on the IEEE1394 standard •16-bit/12-bit PCM audio stereo •Audio dubbing capability •Audio lock mode •3.5-inch LCD screen which turns 90 degrees horizontally and 180 degrees vertically. •Precision colour viewfinder •Built-in Memory card slot •InfoLITHIUM™ system: Lithium-ion battery power system which shows the amount of power remaining in the battery, with an accuracy of one minute

*Optional items are included

Supplied Accessories:	AC-L10 AC Adaptor NP-F330 Rechargeable Lithium-ion Battery Pack RMT-811 Remote Commander and R6 batteries (2) MSA-4A Memory Stick MSAC-PC1 Memory Stick/PC Card Adaptor Special Stereo AV Cable XLR Adaptor Wide Conversion Lens, Lens Hood Lens Cap, Lens Hood, Carrying Belt MSAC-PR1 Parallel Port Adaptor
Optional accesories:	ECM-670 Professional Microphone CAC-12 Microphone Holder EC-0.3C2/EC-0.5C2 Microphone Cable NP-F950/B InfoLITHIUM Rechargeable Battery Pack NP-F750 InfoLITHIUM Rechargeable Battery Pack NP-F730 InfoLITHIUM Rechargeable Battery Pack NP-F550 InfoLITHIUM Rechargeable Battery Pack VMC-IL4415 i.LINK Cable VMC-IL4435 i.LINK Cable VMC-IL4615 i.LINK Cable VMC-IL4635 i.LINK Cable

Specifications

Lens:	12:1 variable speed (1.88-26.5 sec) zoom lens f = 4.3 to 51.6 mm; F1.6 to 2.8; Filter diameter 52 mm	
Focus:	Auto/Manual (ring)/Infinity	
Imaging Device:	Three 1/4-inch colour CCDs, Interline-Transfer Sensor, 450,000 pixels, Progressive/Interlace Scan	
White Balance:	Auto/One-push/Outdoor/Indoor	
Shutter Speed:	1/4 to 1/10000 seconds	
Exposure:	Auto/Manual (Exposure dial, Program AE)	
Minimum Illumination:	4 lx	
Horizontal Resolution	500 TV lines	
Viewfinder:	180,000 dot Colour LCD, Zebra Pattern	
Audio Signal:	Rec:	48 kHz/16-bit, 32 kHz/12-bit
	Playback:	48 kHz/16-bit, 32 kHz/12-bit 32 kHz/16-bit, 44.1 kHz/16-bit
Built-in Microphone:	Stereo electret condenser microphone	
Built-in Speaker:	Dynamic speaker	
LCD:	TFT Active Matrix, 3.5-inch 184,580 pixels (839 × 220)	
Tape Speed:	Approx. 28.193 mm/s (DVCAM mode)	
Maximum Recording Time:	40 minutes (with PDVM-40ME)	
Video Signal:	CCIR Standard, PAL colour system	
Memory Card Slot:	PC Card Standard ATA specifications Type II	
Power Requirement:	3.3/5 V	
Capacity:	2 MB to 64* MB (*When formatted by DSR-PD100P)	
Recording Signals:	Camera signal, VTR signal	
Image Size:	VGA(640x480)	
Image Compression:	JPEG	

Connectors:	Audio/Video IN/OUT:	Special AV Mini (converts to Phono) (1)
	S-Video IN/OUT:	Mini-DIN 4 pin (1)
	Mic IN:	Stereo Mini (1)
	i.LINK(DV IN/OUT):	4-pin (1)
	LANC:	Stereo minimini (1)
	Headphone:	Stereo mini (1)
	External DC IN:	8.4V from AC-L10 AC Adaptor
Operating temperature:	0 °C to 40 °C (32 °F to 104 °F)	
Storage temperature:	-20 °C to 60 °C (-4 °F to 140 °F)	
Power Requirements:	DC 7.2 V (Battery), DC 8.4 V (AC Adaptor)	
Power Consumption:	4.3 W using the viewfinder/5.3 W using the LCD	
Dimensions (w × h × d):	93 × 112 × 193.5 mm (3 ¾ × 4 ½ × 7 ⅝ inches)	
Mass:	Approx. 900 g/1 lb 15 oz	

DSR-PD1P

Digital Camcorder

•Compact and handy: 520 g (1.2 lb) •1/3-inch CCD •Superb picture quality of the DVCAM format •Playback capability of consumer DV recorded tapes (SP mode only) •40 minutes recording time with a mini cassette* •Super SteadyShot™ function for stable picture shooting without sacrificing picture quality •Extreme close-up shots with x20 digital and x10 optical zoom •2 1/2-inch colour LCD advanced viewfinder •InfoLITHIUM™ system; Lithium-ion battery power system which shows the amount of power remaining in the battery, with an accuracy of one minute •Photo mode for high quality still images •A/V digital fade-to-black/silence function (Fade in from black/silence) •Audio dubbing capability (32 kHz/12-bit only) •Time code capability •i.LINK (DV In/Out) interface based on the IEEE1394 standard •LANC interface for simple editing with a LANC-based recorder or editing system

SONY
20x DIGITAL ZOOM
Super SteadyShot
DVCAM
SONY

* The DSR-PD1P accepts only mini DVCAM and DV cassettes.

Supplied Accessories:	RMT-807 Wireless Remote Control A/V Cable-special Vanadium-Lithium Battery (Built-in) AA Batteries (2)
Optional Accessories:	AC-V100/B AC Adaptor (with DK626) NP-F220/B Rechargeable Lithium-ion Battrery (1400 mAh) VMC-LM7 LANC/Microphone Adaptor ACC KIT-PD1 Accessory Kit

Specifications

Imaging Device:	1/3-inch colour CCD, Interline-Transfer sensor, 810,000 pixels (gross) 400,000 pixels (effective)
Lens:	10:1 variable speed zoom lens (1.0 to 29 seconds at stand -by, 1.5 to 29 seconds at recording) f = 4.0 to 40 mm; F1.8 to 2.6; filter diameter 37 mm
Focusing:	Auto/Manual/Infinity
White Balance:	Auto/Hold/Outdoor/Indoor
Minimum illumination:	3 lux at F1.8
Exposure:	Auto
Shutter:	1/50 to 1/4,000 second (In AE mode)
LCD:	2.5-inch Advanced Colour LCD 84,480 dots
Viewfinder:	0.55" 113k dots colour viewfinder
Continuous Recording Time with LCD:	95 min. (NP-F220/B, Fully changed)
Video/Audio Recording System:	Helical scanning system
Maximum Recording Time:	40 min. (PDVM-40ME)
Video/Audio Output:	Special AV Mini (to convert RCA pin), S-video
Audio Output:	Special AV Mini Stereo
Headphone Jack:	Stereo Mini
Control-L (LANC) Terminal:	Stereo Mini (using optional, VMC-LM7)
Microphone:	Stereo (Wind Position, auto only)
Power Consumption:	6.0W (LCD on), 5.0W (LCD off)
Dimensions:	59 (W) × 129 (H) × 118 (D) mm ($2\frac{3}{8} \times 5\frac{1}{8} \times 4\frac{5}{8}$ inches)
Mass:	1.1 lb (520 g) (Without battery and tape)

DXC-637P series

3-chip colour video camera

*Production of this product has been discontinued. For details, please consult your nearest Sony office.

•PVW-637P perfect camcorder operation with the PVV-3P
•Compact size, lightweight and low power consumption
•High density three 2/3-inch IT Hyper HAD sensors, Sony's original spatial offset technology and improved electronic circuit offer superior picture quality
— 800 TV lines of horizontal resolution
— Excellent signal-to-noise ratio of 61dB
— High sensitivity of F8.0 at 2000 lx
•Smear almost negligible due to the HAD sensor structure and OCL layer of the Hyper HAD sensor •The 2-dimensional optical low pass filter and Digital IE circuit suppress aliasing/spurious phenomenon •The detail limiter effectively reduces unsmooth diagonal edges appeared on highly contrasted object (Clean Detail) •Clear Scan function for shooting computer displays without horizontal bands appearing across display screen •Hyper Gain mode provides the combined effect of +30dB of electronic gain-up and +6dB of DPR (Dual Pixel Readout) under 1 lux i llumination •DPR (Dual Pixel Readout) technology realizes noiseless picture even when gain value is increased •EZ Mode and EZ Focus functions enable cameramen to get ready for shooting swiftly •DCC (Dynamic Contrast Control) circuit can reproduce 600% dynamic range •DCC plus provides excellent colour reproduction even at the high luminance level •EVS (Enhanced Vertical Difinition System) realizes a remarkable vertical resolution of 530TV lines •ATW (Auto Tracing White Balance) function automatically adjusts white balance when lighting conditions change •Programmable gain mode allows precise gain selection from 8 gain values •Three modes of matrix- STD (Standard), H.SAT (High Saturation), and FL (Fluorescent light) are provided to change the chroma saturation and hue •Three mode auto iris system- STD (Standard), BACK L(Back Light) and SPOT L(Spot Light) •Variable Speed Electronic Shutter •Supplies a 1kHz audio reference signal simultaneously with the colour bar signal •Date and time can be superimposed on the video signal •Can be coupled directly with the PVV-1AP/3P for high quality component acquisition or with the EVV-9000P for handy operation •Can be combined with the recorders from Panasonic or JVC via the CA-512 or CA-513 •When combined with CA-537P/327P, 26/14-pin connectors provides signal output in Y/R-Y/B-Y, VBS, Y/C and RGB forms for connection with various equipement •Can be connected with computer equipment via CA-325A/325B camera adaptor •The VFs display PVV-3P's status, a remarkable 600TV lines of horizontal resolution •V-DTL signal is mixed to the VF's video signal for easy focusing (VF Super Detail) •Safety zone and centre marker indications in viewfinder •The VCL-916BYA aspherical lens allows a wider angle of view and reduced ghost and flare •Adjustable shoulder pad •Monitor out function

Supplied accessories:	Wind screen Lens mount cap Chart for flange focal Operating instructions

*Camera adaptor is optional

Specifications

General

Image device:	2/3–inch Interline Transfer CCD (×3) 816(H) × 606(V) total picture elements 786(H) × 581(V) effective picture elements
Built-in filters:	1: 3200K, 2: Cross(3200K), 3: 5600K, 4: 5600K+1/16ND
Lens mount:	Bayonet-mount
Video signal system:	PAL standard
Sync system:	Internal or external with VBS or BS
Horizontal resolution:	800TV lines
Minimum illumination:	1 lx with F1.4, Hyper Gain (DPR+30dB) 1.5 lx with F1.8, Hyper Gain (DPR+30dB)
Sensitivity:	F8.0 at 2000 lx (3200K, 89.9% reflectance)(typical)
Gain selection:	–3dB, 0dB, +3dB, +6dB, +9dB, +12dB, +18dB, * DPR+18dB, +24dB, * DPR+24dB, Hyper Gain (* DPR+30dB)
S/N ratio:	61dB (typical)
Power requirements:	DC12V
Power consumption:	12W (without VF/CA-537P)
Operating temperature:	–10 to 45˚C (14 to 113˚F)
Mass:	Approx. 2.3 kg (5 lb 1 oz, for camera head only) Approx. 3.6 kg (7 lb 15 oz, with the CA-537P)

Inputs/outputs

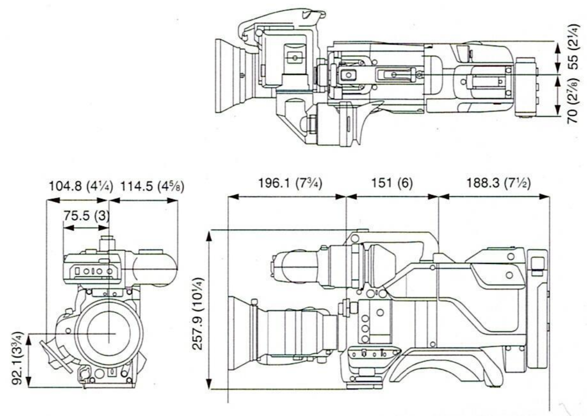
INTERFACE:	DIN 50-pin
VIDEO OUT:	BNC type
LENS:	12-pin
VF:	DIN 8-pin
REMOTE:	10-pin
MONITOR OUT:	RCA type

* DPR = +6dB, DPR +18dB = +24dB, DPR+24dB = +30dB, DPR+30dB = +36dB

Model / Composition	DXC-637PH	DXC-637PL	DXC-637PK
Camera head DXC-637P	Yes	Yes	Yes
Zoom lens VCL-916BYA	Option	Option	Yes
Viewfinder DXF-601CE	Option	Yes	Yes
External microphone	Option	Yes	Yes
Tripod adaptor VCT-U14	Option	Yes	Yes

Dimensions

With optional camera adaptor



PVW-637P series

Betacam SP camcorder

*Production of this product has been discontinued. For details, please consult your nearest Sony office.

•Coupled with PVV-3P and DXC-637P via the Pro 50-pin connector for high quality component acquisitions •Compact and lightweight: approx. 8.2 kg (18 lb 1 oz)(Both including the battery, viewfinder, microphone, zoom lens) •Low power consumption: approx. 24W with viewfinder •Lightweight rugged magnesium diecast body •Large carrying handle for enhanced transportability and easier handling in low angle.

Specifications

PVW-637P Camcorder

Power consumption:	24W (with DXF-601CE Viewfinder)
Mass:	8.2 kg (18 lb 1 oz) (incl. DXF-601CE viewfinder, microphone, VCL-916BYA lens, NP-1B battery, videocassette, carrying handle)
Operating time:	60 minutes (with an NP-1B)

Component Chart

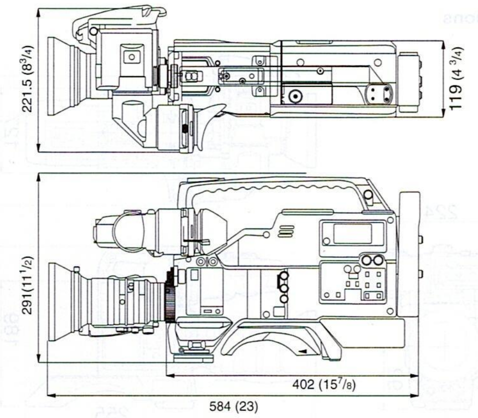
Model / Composition	PVW-637PK	PVW-637PL
Camera head DXC-637P	Yes	Yes
PVV-3P	Yes	Yes
Carrying handle for camcorder	Yes	Yes
Zoom lens VCL-916BYA	Yes	option
carrying case LC-421	Yes	Yes
External microphone (Incl. Mic.Cable)	Yes	Yes
Viewfinder DXC-601/CE	Yes	Yes
Tripod adaptor VCT-U14	Yes	Yes

Product configuration

PVW-637PK

PVW-637PL

Dimensions



Unit: mm (inches)

DXC-327BP series

3-chip CCD colour video camera

•Directly dockable not only with current analog VTR's/CA's but also with Digital Recorder (DSR-1P) •High sensitivity of F9.0 at 2000 lx and a low smear level (1/10 of the conventional camera) given by three Sony 1/2-inch IT Power HAD (Hole Accumulated Diode) sensors •700TV lines of horizontal luminance resolution thanks to the high density CCD chips (470,000 total picture elements/440,000 effective picture elements) and Sony's original spatial offset technology •The Power HAD sensor structure in combination with advanced electronic circuitry allows an excellent S/N ratio of •Electronic shutter equipped •2-line image enhancer for crisp image •Modular design allows choice of combo stand-alone or multi-camera use •Can be combined with the DSR-1P DVCAM Digital Recorder, allowing simple ClipLink function •Can be docked directly with the PVV-1AP/3P for high quality component acquisition •Can be combined with S-VHS recorders from Panasonic or JVC via the CA-512P or CA-513 Camera Adaptor •When cambined with CA-537P, 26-pin connector on camera adaptor provides signal output in Y/R-Y/B-Y, VBS, Y/C and RGB forms for connection with various equipment •The DXF-601CE: Diecast alminum body, 600TV lines of horizontal resolution, the large eye cup for easy viewing, external TALLY and a new dioptre mechanism for easier dioptre adjustment •Compact size, lightweight, and low power consumption •VCL-714BX cableless 14 × zoom lens •Convenient built-in microphone •Safety Zone and Centre Marker indications in viewfinder •Built-in character generator can generate letters and numbers for titles and dates •5 step auto iris override (+1F stop/+0.5F stop/Preset/ -0.5F stop/-1.0F stop) •Convenient gain-up function (0/+9/+18dB) •Zebra video level indication •Two memory white balance system •ABL (Automatic Black Level) function •RM-M7G remote connector on camera head for remote control in any configuration •Extended system versatility with optional CA-325AP/325B Camera Adaptors, RM-M7G Remote Control Unit, and CCU-M7P/M5P

SONY
SONY
Power HAD

*Camera adaptor is optional

Specifications

General

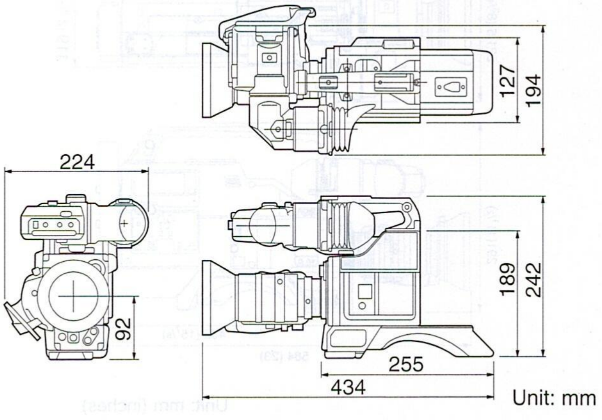
Image device:	1/2-inch Interline Transfer CCD (×3), 795 (H) × 596 (V) total picture elements 752 (H) × 582 (V) effective picture elements
Electronic viewfinder:	1.5-inch monochrome (except DXC-327BPH)
Lens:	F1.4, 7.5 to 90mm zoom lens with auto iris/macro mechanism (DXC-327BPF/327BPK)
Lens mount:	Bayonet-mount
Video signal system:	PAL standard
Horizontal resolution:	700TV lines
Minimum illumination:	6.0 lx with F1.4, +18dB
Sensitivity:	F9.0 at 2000 lx
Sync system:	Internal or external selectable
S/N ratio:	61dB
Power requirements:	DC 12V
Power consumption:	8.0W (without VF/CA-537P)
Operating temperature:	–5 to 45°C (23 to 113°F)
Mass:	2.0 kg (4 lb 6 oz, for camera head only) 3.3 kg (7 lb 4 oz, with the CA-537P)

Inputs/Outputs

VTR/CCU/CMA:	Sony Z-type, 26-pin
VIDEO OUT:	BNC-type
GENLOCK:	BNC-type
MIC IN:	XLR-type, 3-pin
LENS:	Hot-shoe type or 6-pin (for 2/3-inch lens)
REMOTE:	10-pin
VF:	DIN 8-pin
DC IN:	XLR-type, 4-pin
EARPHONE:	mini jack
INTERCOM:	mini intercom jack

Model / Composition	DXC-327BPF	DXC-327BPK	DXC-327BPL	DXC-327BPH
Colour video camera head	Yes	Yes	Yes	Yes
Tripod adaptor VCT-U14	Yes	Yes	Yes	Option
Viewfinder DXF-601CE	Yes	Yes	Yes	Option
Zoom lens VCL-714BX	Yes	Yes	Option	Option
Carrying case LC-421	Yes	Option	Option	Option

Dimensions



UVW-100BP

Betacam SP One-Piece Camcorder

•High performance one-piece camcorder •Incorporates three 1/2-inch IT Power HAD sensors •High quality Betacam SP component recording format •High sensitivity of F11.0 at 2000 lx, high signal to noise ratio of 58dB, high horizontal resolution of 700TV lines •Compact and light weight approx. 7.3 kg including the viewfinder, battery, cassette and lens •Low power consumption of 20W •More than 35 minutes of recording time using the S-size metal Betacam SP cassette •Programmable gain up (0 to 18dB) •ATW (Auto Tracing White Balance) •Total Level Control System provides optimum adjustments for any lighting conditions: AGC (Automatic Gain Control), AE (Auto Exposure) and Intelligent Auto Iris •Built-in safety zone and centre marker generator in the viewfinder •Two memories for white balance value •×14 zoom lens: VCL-714BX (supplied with the UVW-100BPF/BPK) •1/2-inch bayonet mount •Variable electronic shutter •Clear Scan function (50.0 to 201.5Hz) •Camera gen-lock and Time Code gen-lock capability •The 26-pin interface provides component, composite and Y/C video signal to an external VTR for simultaneous recording •Built-in time code generator and reader •Real Time/Date recording function •Two longitudinal audio channels with the Dolby C-Type NR (Noise Reduction) system •Recording review and back space editing function •Colour playback in the field with the optional VA-300P Playback Adaptor •8-digit LCD display •Bargraph meter for audio level and battery status •Built-in earspeaker •External microphone power supply (+48V, Ch-1/2)

Optional accessories:	Battery pack NP-1B, BP-90A Battery charger BC-1WDCE, BC-410CE Battery adaptor DC-520, DC-500 AC adaptor AC-550CE AC power adaptor CMA-8ACE Playback adaptor VA-300P Remote controller RM-81 Carrying case LC-421 Rain cover LCR-1 26/26-pin cable CCZ-A cable 14/26-pin cable CCZQ-A cable Tripod adaptor VCT-U14
Supplied accessories:	Tripod adaptor External Michrophone Shoulder strap Viewfinder ×14 zoom lens Carring case Operational manual

Specifications

General

Type:	One-piece camcorder
Power requirements:	DC 12V $^{+5.0}_{-1.0}$ V
Power consumption:	20W (at 12V, without viewfinder)
Operating temperature:	0 to 40˚C (32 to 104˚F)
Storage temperature:	–20 to 60˚C (–4 to 140˚F)
Humidity:	Less than 85% (relative humidity)
Mass:	7.3 kg (fully equipped with VF/lens/battery/MIC)
Tape speed:	101.5 mm/s
Playback/recording time:	More than 35min with UVWT-30MA
Fast forward time:	Less than 7.5min with UVWT-30MA
Rewind time:	Less than 5.5min with UVWT-30MA

Camera Head

Image device:	Three 1/2-inch IT Power HAD CCD sensors
Optics:	F1.4 medium index prism system
Picture element:	Total: 795 × 596 (H × V) Effective: 752 × 582 (H × V)
Built-in filters:	1: 3200K 2: 5600K + 1/16ND 3: 5600K
Lens mount:	1/2-inch bayonet
Video signal aystem:	PAL (colour)

Horizontal resolution:	700TV lines
Minimum illumination:	4.0 lx with F1.4 +18dB
Sensitivity:	F11.0 at 2000 lx
Gain selection:	0dB MID (1dB to 17dB in 1dB steps) HIGH (2dB to 18dB in 1dB steps) (MID < HIGH) 0dB to 18dB variable (AGC)
Shutter speed selection:	OFF, 1/60, 1/250, 1/500, 1/1000, 1/2000s
Clear Scan range:	50.0Hz to 201.5 Hz
S/N ratio:	58dB
Registration:	0.05% (all zone, without lens)
Geometric distortion:	Below measurable level
Camera:	VBS: 1.0Vp-p, sync negative
26-pin connector:	VBS: 1.0Vp-p, sync negative Y: 1.0Vp-p, 75Ω, sync negative R-Y/B-Y: 0.525Vp-p Y/C: {Y}; 1.0Vp-p, 75Ω, sync negative {C}; 0.3Vp-p (burst level)

VTR Portion

Video

Recording system:	Rotary 4-head helical scan system R-Y/B-Y: FM recording (CTDM) Y: FM recording
Time Code IN (BNC):	0.5V to 5Vp-p, 10kΩ
Time Code OUT (BNC):	1.0Vp-p, 75Ω

Audio

Input:	MIC: –60dBu, 3kΩ, balanced Line: +4dBu, 10kΩ, balanced

Video Performance

Bandwidth:	Y: 25Hz to 5.0MHz $^{+1.0}_{-4.0}$ dB R-Y/B-Y: 25Hz to 1.5MHz $^{+1.0}_{-4.0}$ dB
S/N ratio:	Y (Component IN/OUT): More than 46dB R-Y/B-Y: More than 47dB
Distortion:	K-factor: Less than 3% Y/C delay: Less than 30ns

Audio Performance

Frequency response (20dB below peak level):	50Hz to 12.5kHz $^{+2.0}_{-3.0}$ dB
S/N ratio (at peak level* CCIR 468-3):	More than 60dB
Distortion (at 1kHz, operational level (+4dBu)):	Less than 1.5%
Wow and flutter:	Less than 0.18%rms

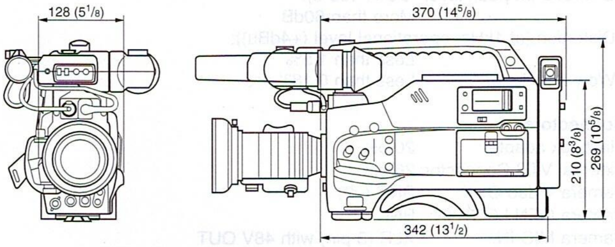
Connectors

Playback adapter:	20-pin
External VTR Connector:	26-pin
Camera Video OUT:	BNC (×2)
Camera GEN LOCK IN:	BNC
Camera MIC IN:	XLR (3-pin) with 48V OUT
Audio IN:	XLR (×2) (3-pin) with 48V OUT selectable
Headphone OUT:	Stereo mini jack
Remote:	Stereo mini jack
Lens:	12-pin (for $^{2}/_{3}$-inch lens)
DC IN:	XLR 4-pin (for the optional CMA-8ACE)
Time Code IN:	BNC
Time Code OUT:	BNC

Component Chart

	UVW-100BPF	UVW-100BPK	UVW-100BPL
Camcorder UVW-100BP	Yes	Yes	Yes
External microphone	Yes	Yes	Yes
Shoulder strap	Yes	Yes	Yes
Tripod adapter VCT-U14	Yes	Yes	Yes
Viewfinder DXF-601CE	Yes	Yes	Yes
Zoom lens VCL-714BX	Yes	Yes	Option
Carring case LC-421	Yes	Option	Option

Dimensions



Unit: mm (inch)

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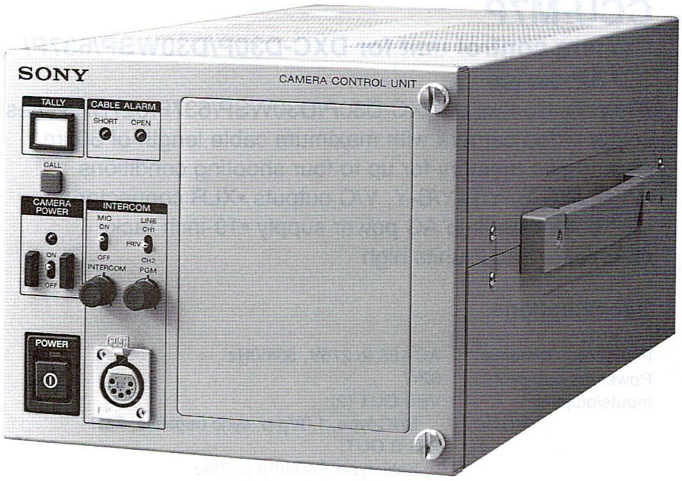
* Peak level = +8dB above operational level.

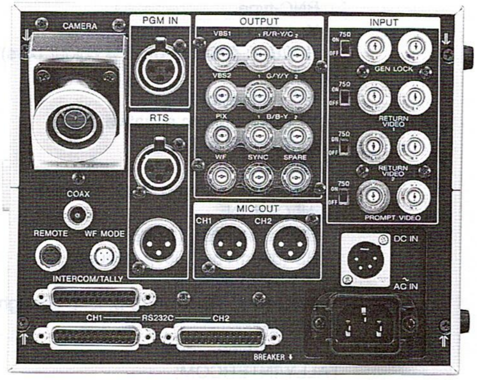
CCU-TX7P

Camera Control Unit

•Triax camera control unit for the DXC-D30P and the DXC-637P •Runs either on AC or DC (12 V) power •High speed high quality data transmission •High quality triax transmission •Long distance transmission, up to 1125mm via (phi)13.2mm cable (Belden) and up to 750m via Ø8.5mm cable (Fujikura, Belden) •Two component video outputs (selectable from Y/R-Y/B-Y, R/G/B and Y/C) in addition to two composite output •Two inputs for return video •Colour teleprompter compatible •Flexible intercom system •Program microphone system •RS-232C port •Coaxial control capability •Half a 19-inch rack size wide and 4 units high


SONY
CAMERA CONTROL UNIT
TALLY
CABLE ALARM
SHORT
OPEN
CALL
CAMERA POWER
ON
OFF
INTERCOM
MIC
ON
OFF
LINE
CH1
PRIV
CH2
INTERCOM
PGM
POWER

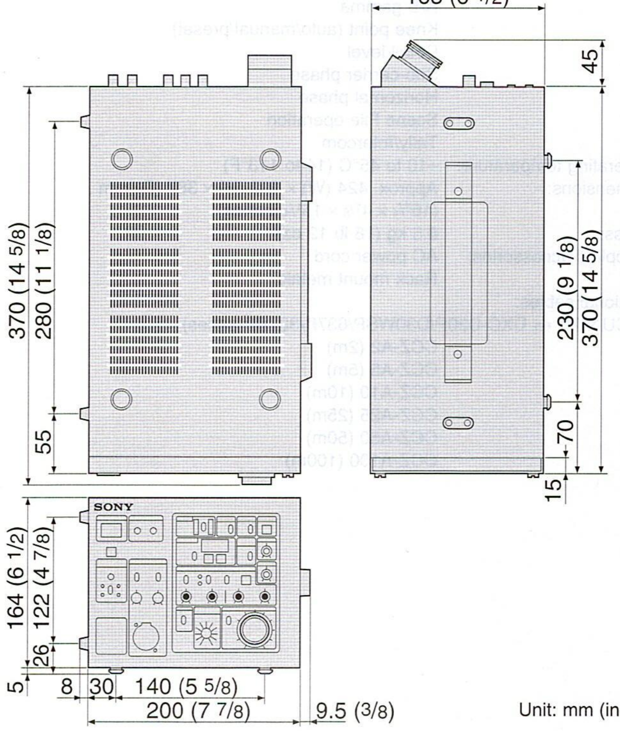
Supplied accessories:	AC power cord (1) Plug holder for AC power cord × 1 Number plate (1 set) Operation manual (1)


CAMERA
PGM IN
OUTPUT
VBS1
R/R-Y/C 2
VBS2
G/Y/Y 2
PIX
B/B-Y 2
WF
SYNC
SPARE
INPUT
75Ω
GEN LOCK
RETURN VIDEO
RETURN VIDEO
PROMPT VIDEO
RTS
COAX
REMOTE
WF MODE
MIC OUT
CH1
CH2
DC IN
AC IN
INTERCOM/TALLY
CH1
RS232C
CH2
BREAKER

Specifications

Input connectors:	GEN LOCK: BNC type, loopthrough, VBS/BS, 1.0Vp-p, 75ohms RETURN (1,2): BNC type, loopthrough, VBS, 1.0 Vp-p, 75ohms PROMPT (prompter): BNC type, loopthrough, VBS, 1.0 Vp-p, 75ohms PGM IN: XLR 3-pin (1)
Output connectors:	VBS (1,2): BNC type, VBS, 1.0 Vp-p, 75ohms (*)Y/R-Y/B-Y (1,2): BNC type, Y: 1.0Vp-p, 75ohms R-Y/B-Y: 525mVp-p, 75ohms (*)R/G/B (1,2): BNC type, 700mVp-p, 75ohms (*)Y/C (1,2): BNC type, Y: 1.0Vp-p, 75ohms C: 300mVp-p, 75ohms SYNC: BNC type, VBS, 0.3 Vp-p, 75ohms, negative PIX (picture monitor): BNC type, 1.0 Vp-p, 75ohms WF (waveform monitor): BNC type, 700 mVp-p, 75ohms (Encoded output: 1.0 Vp-p, 75ohms) WF MODE: 4-pin (1) MIC OUT (CH-1/2): XLR 3-pin (2), 0dBu/–20dBu balanced, 2 channels
Camera control: input/output: connectors:	CAMERA: Triax (Fischer type) (1) COAX: BNC type (1) REMOTE: 10-pin INTERCOM/TALLY: D-sub 25-pin (1) 4W/2W TALLY: 24V DC, TTL level or contact selectable INTERCOM (Front): XLR 5-pin (1) RTS: XLR 3-pin (1) RS232C: D-sub 25-pin (2)
Power requirements:	AC 220 to 240V or DC 10.5 to 17.0V
Power consumption:	95W max.
Cable length:	1500 m max. (±14.5 mm)
Operating temperature:	5°C to 40°C (41°F to 104°F)
Storage temperature:	–20°C to 55°C (–4°F to 131°F)
Mass:	Approx. 8.45 kg (18 lb 10 oz)
Dimensions:	218 (W) × 169 (H) × 415 (D) mm ($8\frac{5}{8} \times 6\frac{3}{4} \times 16\frac{3}{8}$ inches)

Dimensions


163 (6 1/2)
45
370 (14 5/8)
280 (11 1/8)
55
230 (9 1/8)
370 (14 5/8)
70
15
SONY
164 (6 1/2)
122 (4 7/8)
26
5
8
30
140 (5 5/8)
200 (7 7/8)
9.5 (3/8)

Unit: mm (inch)

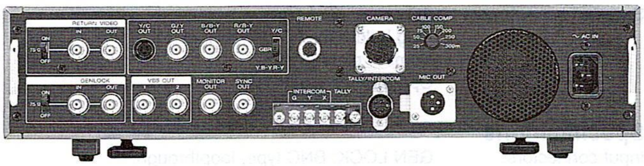
(*) These CCU output signals can be selected to be R/G/B or Y/R-Y/B-Y or Y/C.
(Note: This product is not available in some countries.)

CCU-M7P

Camera control unit for DXC-D30P/D30WSP/637P/327BP series

•Remote Control of DXC-D30P/D30WSP/637P/327BP series colour video camera with maximum cable length of 300m •Scene File memory for up to four shooting conditions •VBS, R/G/B, Y/R-Y/B-Y, Y/C outputs •XLR connector for MIC output •Built-in AC power supply •19-inch rack mountable and 2-units high

SONY
CAMERA CONTROL UNIT CCU-M7



Specifications

Power requirements:	AC 185 to 275V, 50/60Hz
Power consumption:	62W
Inputs/outputs:	VBS OUT (2); BNC-type, 1.0Vp-p, sync negative, 75Ω R/G/B OUT; BNC-type, 700mVp-p, 75Ω Y/R-Y/B-Y OUT; BNC-type, Y: 1.0Vp-p, sync negative, 75Ω R-Y/B-Y: 525mVp-p (75% colour bars) Y/C OUT; Y/C connector (4-pin), Y] 1.0Vp-p, sync negative, 75Ω C] 300mVp-p, 75Ω SYNC OUT; BNC-type, 4.0Vp-p, 75Ω, negative GENLOCK IN; BNC-type, VBS (1.0Vp-p) or BS (300mVp-p), loop through RET VIDEO IN; BNC-type, VBS, 1.0Vp-p, loop-through CAMERA; Sony Z-type, 26-pin TALLY/INTERCOM; DIN 4-pin or screw terminals MIC OUT; XLR-type, 3-pin, –20dBu
Control:	Gain select Output mode select Status display ON/OFF Shutter speed select Iris (auto/manual) White balance (auto/manual/preset) R/B gain Black balance (auto/manual/preset) Master pedestal R/B pedestal Gamma (manual/preset) Master gamma R/B gamma Knee point (auto/manual/preset) Detail level Sub-carrier phase Horizontal phase Scene File operation Tally/Intercom
Operating temperature:	–10 to 45°C (14 to 113°F)
Dimensions:	Approx. 424 (W) × 103 (H) × 387 (D) mm ($16^{3}/_{4} \times 4^{1}/_{8} \times 15^{1}/_{4}$ inches)
Mass:	8.5 kg (18 lb 12 oz)
Supplied accessories:	AC power cord Rack mount metals

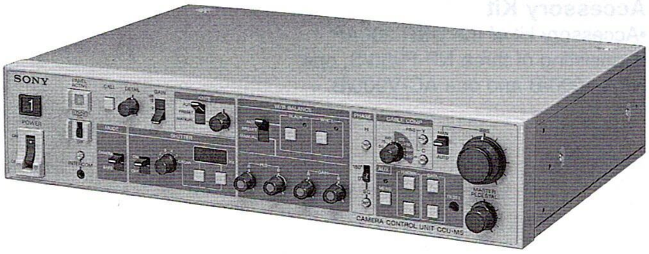
Optional cables:
(CCU-M7P ↔ DXC-D30P/D30WSP/637P/327BP series)

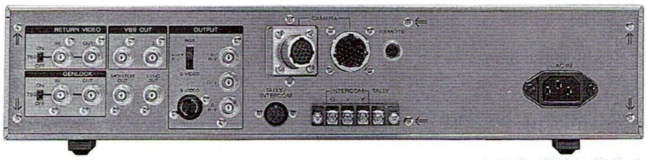
- CCZ-A2 (2m)
- CCZ-A5 (5m)
- CCZ-A10 (10m)
- CCZ-A25 (25m)
- CCZ-A50 (50m)
- CCZ-A100 (100m)

CCU-M5P

Camera control unit for DXC-D30P/D30WSP/637P/327BP/950P/9100P

•Directly interfaces with both Z-type (26-pin) and Q-type (14-pin) camera systems •Also interfaces with DXC-950P/9100P via CCTZ/CCZ-A or CCTQ/CCQ-AM combination •Remote control operation with maximum cable lengths of 300m for Z-type and 100m for Q-type cable VBS, R/G/B, Y/R-Y/B-Y, Y/C output •Built-in AC power unit •19-inch rack mountable and 2-units high





Specifications

Power requirements:	AC 187V to 275V, 50/60Hz
Power consumption:	54W
Inputs/outputs:	VBS OUT (2); BNC-type, 1.0Vp-p, sync negative, 75Ω R/G/B OUT; BNC-type, 700mVp-p, 75Ω Y/R-Y/B-Y OUT; BNC-type Y: 1.0Vp-p, sync negative, 75Ω R-Y/B-Y: 525mVp-p (75% colour bars) Y/C OUT; Y/C connector (4-pin), [Y] 1.0Vp-p, sync negative, 75Ω [C] 300mVp-p, 75Ω SYNC OUT; BNC-type, 4.0Vp-p, 75Ω, negative GENLOCK IN; BNC-type, VBS(1.0Vp-p) or BB(450mVp-p), loop-through RET VIDEO IN; BNC-type, VBS, 1.0Vp-p, loop-through CAMERA; Sony Q-type, 14-pin Sony Z-type, 26-pin TALLY/INTERCOM; DIN 4-pin or screw terminals
Control:	Gain select Output mode select Status display Shutter speed select Iris (auto/manual) White balance (auto/manual/preset) Black balance (auto/manual/preset)[*1] R/B gain Master pedestal R/B pedestal[*2] Gamma (DXC-950P/9100P only) Knee point (auto/manual/preset)[*1,2] Detail level Sub-carrier phase Horizontal phase Tally/Intercom[*1,2]
Operating temperature:	5 to 40°C (41 to 104°F)
Dimensions:	Approx. 424 (W) × 103 (H) × 321 (D) mm ($16^{3}/_{4} \times 4^{1}/_{8} \times 12^{3}/_{4}$ inches)
Mass:	5.9 kg (13 lb)
Supplied accessories:	AC power cord Rack mount brackets

Optional cables:

(CCU-M5P ↔ DXC-D30P/D30WSP/637P/327BP)
CCZ-A2 (2m)
CCZ-A5 (5m)
CCZ-A10 (10m)
CCZ-A25 (25m)
CCZ-A50 (50m)
CCZ-A100 (100m)

(CCU-M5P ↔ DXC-950P/9100P)
CCTZ-3RGB (3m) & CCZ-A Cable
CCTZ-3YC (3m) & CCZ-A Cable
CCTQ-3RGB (3m) & CCQ-AM Cable

Note: [*1] When used with the DXC-950P, these items can not be controlled.
[*2] When used with the DXC-9100P, these items can not be controlled.

ACC KIT-201

Accessory Kit

- Accessory kit of the DSR-200AP
- Consisting of three NP-F950/B, one NPA-1000/B and one AC-V900/B

ACC KIT-PD1

Accessory Kit

- Accessory kit of the DSR-PD1P
- Consisting of three NP-F220/B, one AC-V100/B and one VMC-LM7

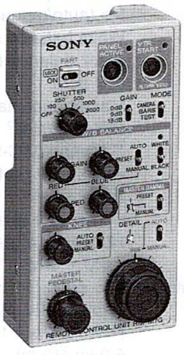
RM-M7G

Remote control unit for DXC-D30P/D30WSP/637P/327BP/DSR-300P

- Compact and lightweight hand-held control unit
- For field production or video operational panel for CCU-M7P/M5P

Power requirements:
DC 9 to 17V, from a camera or a CCU
Power consumption:
0.4W
Mass: 500 g (1 lb 2 oz)
Dimensions: Approx.
86 (W) × 170 (H) × 47 (D) mm
(3 1/2 × 6 3/4 × 1 7/8 inches)

Inputs/outputs:
CAMERA: 10-pin
MONITOR OUT: BNC-type
AUXILIARY IN: 10-pin
Control: Gain select
Output mode select
VTR start/stop
Iris (auto/manual)
Auto iris override
White and black balance (auto/manual/preset)
White balance memory
R/B gain
Gamma (manual/preset)
Master pedestal (manual/preset)
R/B pedestal
Knee point (auto/manual/preset)
Shutter speed select
Detail
Lock (ON/Part/OFF)



RM-LG1

Remote Control Unit

- Remote controller of DXC-D30P/D30WSP/DSR-300P for ClipLink logging operation
- Especially useful in case that the camera operator concentrates only on shooting and logging should be done by another crew

Dimensions: 25 (H) × 85 (W) × 12 (D) mm
(1 × 3 3/8 × 1/2 inches)
(without projecting parts)
Weight: Approx. 50 g (1.8 oz)
(including a cable)
Cable: Length: 5 m
Connector: mini-plug
Operating temperature:
–10°C to 45°C (14°F to 113°F)
Storage temperature:
–20°C to 60°C (–4°F to 140°F)

Supplied accessories:
Stickers (1 set)
Binding ties (4)
Panning rod mounting bracket (1)
Operating instructions (1)

RCP-TX7
Remote Control Panel

•Remote Control Panel of the CCU-TX7P
•Covers the complete range of control functions •Can be installed into a standard 19-inch rack with RMM-TXR7 Rack Mount Kit

Power requirements:
10 to 17V
(supplied from camera or CCU)
Power consumption:
4.0W
Operating temperature:
–10°C to 45°C (14°F to 113°F)
Storage temperature:
–20°C to 55°C (–4°F to 131°F)
Mass: Approx. 1.5 kg (3 lb 5 oz)

Dimensions: 100 (W) × 330 (H) × 70 (D) mm
(4 × 13 × $2^7/_8$ inches)
Cable length: 50m max. (with CCA-7 cable)
Supplied accessories:
CCA-7-5 Connecting Cable (5m)
Number plate (1set)
Screws and washers (2)
Operation manual (1)

(Note: This product is not available in some countries.)

CA-325AP
Camera adaptor for DXC-D30P/ D30WSP/637P/327BP

•Multiple outputs of R/G/B, composite sync, VBS, Y/C and AUDIO signals
•Built-in AC power unit

Power requirements:
AC 220/240V, 50/60Hz
Power consumption:
44W
Inputs/outputs:
INTERFACE; 50-pin
VBS OUT; BNC-type
R/G/B OUT; BNC-type (3)
COMPOSITE SYNC OUT; BNC-type
Y/C OUT;
Y/C connector (Mini DIN 4-pin)
AUDIO OUT; Phono jack
GENLOCK IN; BNC-type
REMOTE; 10-pin
Mass: 1.3 kg (2 lb 14 oz)

CA-325B
Camera adaptor for DXC-D30P/ D30WSP/637P/327BP

*Production of this product has been discontinued. For details, please consult your nearest Sony office.

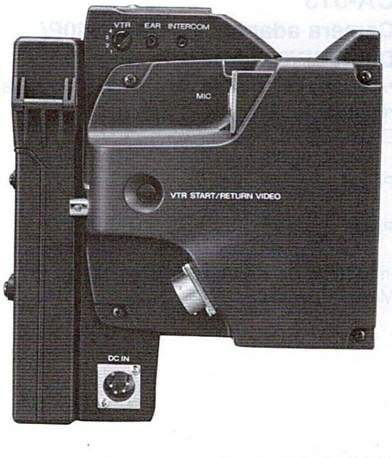
•Multiple outputs of R/G/B, composite sync, VBS, Y/C and AUDIO signals
•DC operation type

Power requirements:
DC 12V
Inputs/outputs:
INTERFACE; 50-pin
VBS OUT; BNC-type
R/G/B OUT; BNC-type (3)
COMPOSITE SYNC OUT; BNC-type
Y/C OUT;
Y/C connector (Mini DIN 4-pin)
AUDIO OUT; Phono jack
GENLOCK IN; BNC-type
REMOTE; 10-pin
DC IN;I XLR-type, 4-pin
Mass: 500 g (1 lb 2 oz)

CA-327P
Camera adaptor for DXC-D30P/ D30WSP/637P/327BP

•For interfacing DXC-D30P/D30WSP/ 637P/327BP with portable VTRs, CCU-M5P and CMA-8ACE
•Equips an S-connector and audio out connector
•The units with serial NO. 40100 and below can be used only with DXC-327P

Power requirements:
DC 12V
Inputs/outputs:
INTERFACE; DIN 50-pin
VTR/CCU/CMA; Sony Q-type, 14-pin
MIC IN; XLR-type, 3-pin
DC IN; XLR-type, 4-pin
GENLOCK IN; BNC-type
EARPHONE; mini jack
INTERCOM; mini intercom jack
Mass: 1.2 kg (21 lb 10 oz)

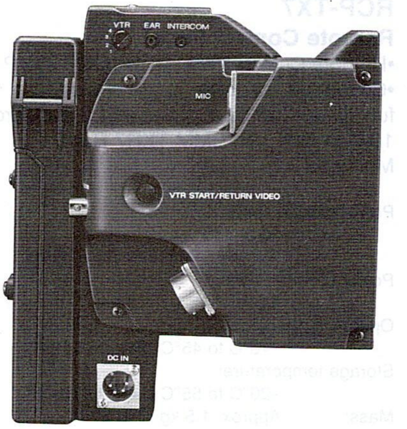


CA-537P

Camera adaptor for DXC-D30P/D30WSP/637P/327BP

- For interfacing DXC-D30P/D30WSP/637P/327BP with portable VTRs, CCU-M7P/M5P and CMA-8ACE
- Supplies mic power from MIC IN connector

Power requirements:
DC 12V
Power consumption:
1.7W
Inputs/outputs:
INTERFACE; DIN 50-pin
VTR/CCU/CMA; Sony Z-type, 26-pin
MIC IN; XLR-type, 3-pin
DC IN; XLR-type, 4-pin
GENLOCK IN; BNC-type
EARPHONE; mini jack
INTERCOM; mini intercom jack
Mass: 1.3 kg (2 lb 14 oz)



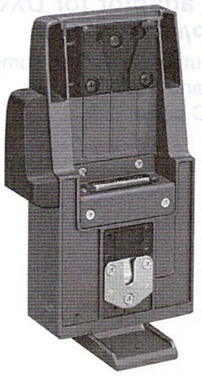
CA-511

Camera adaptor for DXC-D30P/D30WSP/637P/327BP

- Allows a BVV-5PS to be coupled with a DXC-D30P/D30WSP/637P/327P

Power requirements:
DC 12V
Power consumption:
0.1W
Inputs/outputs:
INTERFACE; DIN 50-pin
Betacam output; D-sub 50-pin
Mass: 0.5 kg (1 lb 2 oz)

Note: The CA-511 does not allow connection with the CA-50P/50AP series camera adaptors.

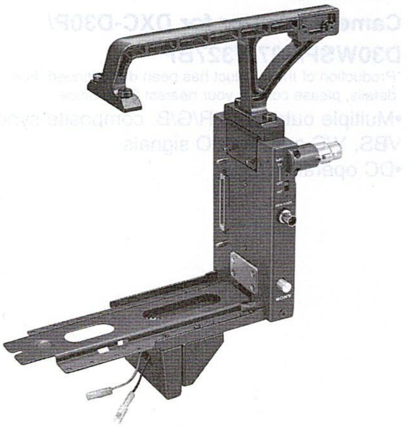


CA-512P

Camera adaptor for DXC-D30P/D30WSP/637P/327BP

- Allows an AG-7450 Panasonic S-VHS video tape recorder to be coupled with a DXC-D30P/D30WSP/637P/327BP

Power requirements:
DC 12V
Power consumption:
0.35W
Input/outputs: INTERFACE; 50-pin (1)
68-pin (1)
Mass: 0.7 kg (1 lb 9 oz)

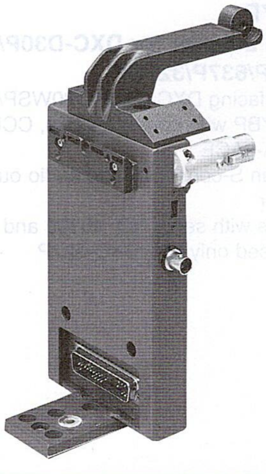


CA-513

Camera adaptor for DXC-D30P/D30WSP/637P/327BP

- Allows a BR-S422E JVC S-VHS video tape recorder to be coupled with a DXC-D30P/D30WSP/637P/327BP

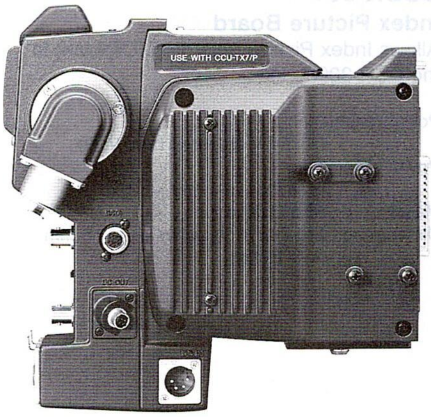
Power requirements:
DC 12V
Power consumption:
0.15W
Input/outputs: INTERFACE: 50-pin (2)
Mass: 0.69 kg (1 lb 8 oz)



CA-TX7P

Camera Adaptor

•Camera Adaptor for the DXC-D30P/D30WSP/637P to the CCU-TX7 Triax Camera Control Unit. •Rotary (70˚) triax connector for easy cabling •Allows box cursor indication on the viewfinder attached to the DXC-D30P/D30WSP, such as DXF-701CE/701WSCE/51/41. (This function is not available with the DXC-637P)


USE WITH CCU-TX7/P

Supplied accessory:
Operation manual (1)
Input/output connectors:
CCU: Triax (Fischer type) (1)
CAMERA: Pro 76P Digital or Pro 50P switchable
MIC IN (CH-1/2): XLR 3-pin (2), 600ohms, balanced
Input level: Mic in: –60dB
Line in: –20dB
DC IN: XLR 4-pin (1),10.5V to 17V
DC OUT: 4-pin (1), 10.5V to 17V, Max 12W
PROMPTER OUT: BNC type (1), 1.0Vp-p, 75ohms
RETURN OUT: BNC type (1), 1.0Vp-p, 75ohms
INTERCOM/PROGRAMME:
XLR 5-pin (1) (for Headset)
Input level: -60dBs (dynamic)
Output level: -0dBu, max 12dBu
DATA OUT: 10-pin (1)
DC 0 to 5V (analogue) (4)
DC 0 or 5V (digital) (2)
Power requirements
DC 120V (from Triax connector) or
DC 12V (10.5 to 17.0V) (from DC IN connector)

Power consumption

	DC 120V		DC 12V	
	CA-TX7P	Total	CA-TX7P	Total
CA-TX7P only	10.5W	10.5W	7.5W	7.5W
w/DXC-D30P, DXF-701WSCE	11.2W	26W	7.5W	22.3W
w/DXC-D30P, DXF-51	12.3W	35W	7.5W	30.2W

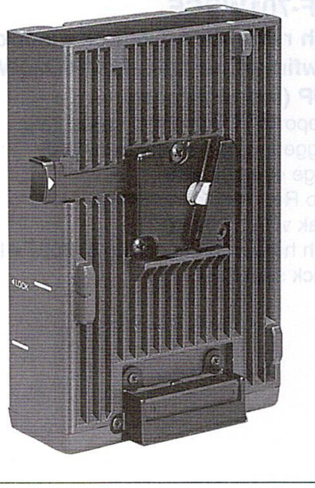
Operating temperature:
-10 °C to 45 °C (14 °F to 113 °F)
Storage temperature:
-20 °C to 55 °C (-4 °F to 131 °F)
Operating humidity:
20% to 90%
Mass: Approx. 2.7 kg (5 lb 15oz)
Dimensions: 226 (H) × 221 (W) × 131 (D) mm
($9 \times 8^3/_4 \times 5^1/_4$ inches)

(Note: This product is not available in some countries.)

CA-WR855

Camera Adaptor for the WRR-855A

Attaches directly to the DSR-300P via a V-shoe attachment and a direct audio/power connection interface.

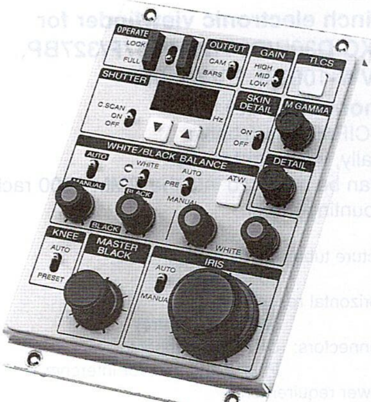


Input voltage:
DC 10 to 17 V (12 V normal)
Output voltage:
DC 7 V
Load current: 200 mA DC or less (at DC 7V)
Mass: Approx. 300 g (10 oz)
Dimensions :
90 (W) × 132 (H) × 36 (D) mm
(3 ⅝ × 5 ¼ × 1 ⁷⁄₁₆ inches)
(w/o projections)

COU-TX7

Camera Operational Unit

•Operational Panel of the CCU-TX7P •Can be attached to form a part of the front panel of the CCU-TX7P •Supports basic control of camera operation and painting •Useful when using the CCU-TX7P in limited space


OPERATE
LOCK
FULL
OUTPUT
CAM
BARS
GAIN
HIGH
MID
LOW
TLCS
SHUTTER
C.SCAN
ON
OFF
Hz
SKIN DETAIL
ON
OFF
M GAMMA
WHITE/BLACK BALANCE
AUTO
MANUAL
WHITE
BLACK
AUTO
PRE
MANUAL
ATW
DETAIL
BLACK
WHITE
KNEE
AUTO
PRESET
MASTER BLACK
IRIS
AUTO
MANUAL

Supplied accessory:
Operation manual (1)
Mass: Approx. 330 g (12.6 oz)
Dimensions: 105 (H) × 155 (W) × 43 (D) mm
($4^1/_4 \times 6^1/_8 \times 1^3/_4$ inches)

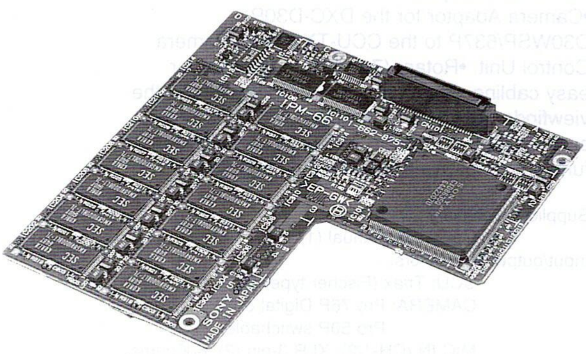
(Note: This product is not available in some countries.)

DSBK-301

Index Picture Board

Allows Index Picture recording (ClipLink) to the DSR-300P

Power requirement:
DC 3.4 V (supplied from VTR)
Power consumption:
Less than 300 mW
Mass: 50 g (1.76 oz)
Dimensions: 110 mm (4 ⅜ inches) × 110.5 mm (4 ⅜ inches)



DXF-601CE

High resolution 1.5-inch electronic viewfinder for DXC-637P/327BP, UVW-100BP (monochrome)

- Supplied with DXC-637PK/637L, PVW-637PK/637PL, DXC-327BPF/327BPK/327BPL UVW-100BPF/100BPK/100BPL
- Rugged, diecast aluminium body
- Large eye cup size
- Peak volume control
- High horizontal resolution of 600TV lines
- Quick start CRT

Picture tube: 1.5-inchmonochrome
Horizontal resolution:
600 lines (centre)
Indicator: REC/TALLY indicator, BATT indicator, SHUTTER indicator, GAIN UP indicator
Power requirements:
DC 12V
Power consumption:
2.1W
Mass: 660 g (1 lb 7 oz)
Dimensions: Approx.
192 (W) × 63 (H) × 219 (D) mm
(7⅝ × 2½ × 8⅝ inches)

DXF-701WSCE

High resolution 1.5-inch electronic viewfinder for DXC-D30P/D30WSP/300P (monochrome)

- Supports 16:9 and 4:3 aspect ratio
- Rugged, diecast aluminium body
- Large eye cup size
- Two Red REC Tally Lamps
- Peak volume control
- High horizontal resolution of 600TV lines
- Quick start CRT

Picture tube: 1.5-inchmonochrome
Horizontal resolution:
600 lines (centre)
Indicator:
REC (2), TAKE, BATT, SHUTTER, GAIN UP
Power requirements:
DC 12V
Power consumption:
2.1W
Mass: 660 g (1 lb 7 oz)
Dimensions: Approx.
236 (W) × 85 (H) × 219 (D) mm
(9⅜ × 3¼ × 8⅝ inches)

DXF-41

4-inch electronic viewfinder for DXC-D30P/D30WSP/637P/327BP, UVW-100BP, EVW-300P (monochrome)

- CCIR/EIA switchable
- Tally, intercom facilities
- Can be mounted into the RMM-1800 rack mounting metal

Picture tube: 4-inch monochrome, 50° deflection
Horizontal resolution:
500 lines (centre)
Connectors: DIN 8-pin connector
Phone and mini for intercom
Power requirements:
Supplied from a camera

Power consumption:
10W
Operating temperature:
0 to 40°C (32 to 104°F)
Dimensions: Approx.
105 (W) × 107 (H) × 252 (D) mm
(4¼ × 4¼ × 10 inches)
including projecting parts and controls
Mass: Approx. 1.62 kg (3 lb 9 oz)
with stand and hood

Supplied accessories:
Stand (1), Screws (4), Hood (1)
Connecting cord (mini-mini) (1)

TALLY
SHARP
BRIGHT
CONTR

DXF-51

5-inch Monochrome Viewfinder

•High horizontal resolution of 650 TV lines •Stable video image •Bright and clear color image •Under Scanning capability •Can operate either on EIA and CCIR signals systems with automatic selection •16:9/4:3 Automatic Aspect Ratio Selection •The viewfinder aspect ratio of the DXF-51 is automatically switched between 16:9 and 4:3 •Two red REC tally lamps •Green Tally Lamp which can be used as a second tally lamp for CCU operations •20-pin connector for DXC-D30P/D30WSP •DIN 8-pin connector for DXC-327BP/637P etc. •+/- 40 degrees of tilting is possible •+/- 90 degrees of panning is possible •Rugged and compact body

Supplied accessories:
Hood, 20-pin Cable,
DIN 8-pin Cable,
Operation Manual

Specifications

Picture tube: 5-inch monochrome, 70° deflection
Scanning system:
2:1 interlace, 625/50 or 525/59.94 switchable
Horizontal resolution:
650TV lines (center)
Camera connector:
20-pin or DIN 8-pin connector
Power requirements:
DC 12V +5.0/-1.5V (supplied from a camera)
Power consumption:
11W
Operating temperature:
0°C to 40°C (32°F to 104°F)
Mass: Approx.2.4 kg (5 lb 5 oz) with stand and hood
Dimensions: Approx. 202 (H) × 199 (W) × 217 (D) mm
($8 \times 7\frac{7}{8} \times 8\frac{5}{8}$ inches)
including projecting parts and controls
Approx. 202 (H) × 199 (W) × 289 (D) mm
($8 \times 7\frac{7}{8} \times 11\frac{1}{2}$ inches)
with stand and hood

DR-100

Intercommunication headset

•Used in the DXC-D30P/D30WSP/637P/327BP, UVW-100BP, CCU-M5P/M7P, SEG-2550AP/2000AP
•With mini type 4-pole plug

Mass: 105 g (3.7 oz)

LC-421

Carrying case for DXC-D30P/D30WSP/637P, DXC-327BP, UVW-100BP

•Can hold the DXC-D30P/D30WSP/637P/327BP in camcorder configuration with DSR-1P/PVV-1AP/PVV-3P/EVV-9000P
•Supplied with the PVW-637PK/637PL, PVW-D30F, DSR-130PF, UVW-100BPF

Dimensions: Approx.
790 (W) × 440 (H) × 340 (D) mm
($31\frac{1}{8} \times 17\frac{3}{8} \times 13\frac{1}{2}$ inches)
Mass: 7.7 kg (17 lb)

LC-300SFT

Soft Carrying Case

•Soft carrying case exclusively designed for the DSR-300P •Small and lightweight (3.1 kg /6 lb 13 oz) •Can hold shooting accessories such as batteries, a battery charger, wireless receiver, and other items as well as the DSR-300P with a lens, VF and microphone attached. •Robust shoulder belt attached

Mass: 3.1 kg (6 lb 13 oz)
Dimensions: 280 (W) × 300 (H) × 600 (D) mm
($11\frac{1}{8} \times 11\frac{7}{8} \times 23\frac{5}{8}$ inches)

LC-304SFT

Soft carrying case for DXC-D30P D30WSP/637P/327BP, EVW-300P, UVW-100BP

- Can hold DXC-D30P/D30WSP/637P/327BP in camcorder configuration with DSR-1P/BVV-5PS/PVV-1AP/PVV-3P/EVV-9000P
- Lightweight for easy transportation

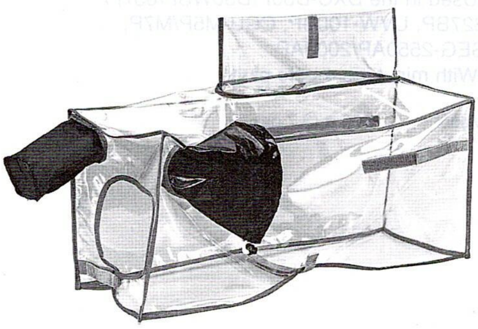
Dimensions: Approx.
720 (W) × 360 (H) × 286 (D) mm
(28 3/8 × 14 1/4 × 11 3/8 inches)
Mass: 2.2 kg (4 lb 14 oz)

LCR-1

Camera rain cover for DXC-D30P/D30WSP/637P/327BP, EVW-300P, UVW-100BP camcorders

- Can be used for the DXC-D30P/D30WSP/637P/327BP, in camcorder configuration with DSR-1P/BVV-5PS/PVV-1AP/PVV-3P/EVV-9000P
- Transparent material used to operate camera and VTR switches with the LCR-1 on

Mass: 260g (9 oz)



CAC-12

Camera microphone holder

- Adjustable microphone direction
- For attaching the ECM-672/670 or the C-74 condensor microphone to the DXC-D30P/D30WSP/637P/327BP, EVW-300P and UVW-100BP

EC-0.3C2

Microphone cable

- Cable length: 0.3 m
- Connectors: XLR-3-11C ↔ XLR-3-12C

EC-0.5C2

Microphone cable

- Cable length: 0.5 m
- Connectors: XLR-3-11C ↔ XLR-3-12C

ECM-670

Electret Condenser Microphone

•Super-cardioid microphone with minimum sensitivity to ambient noise •Compact and light weight design •Suitable for mounting on Sony Betacam, DVCAM and DXC series cameras •External power supply (DC 12V to 48V)

ECM-672

Electret Condenser Microphone

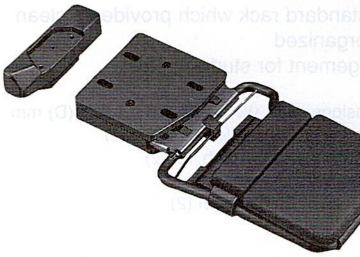
•Super-cardioid characteristics, rejecting indirect sound •2-way powering — internal battery (Approx. 3,000 hours of continuous operation) or external power supply (DC 48V) •2-position low-cut filter •Suitable for mounting on Sony Betacam, DVCAM and DXC series cameras

CAC-4

Chest pad for DXC-D30P/D30WSP/637P/327BP, EVW-300P, UVW-100BP

- Provides more stable camera operation
- Attachable to the VCT-12/14 /U14 tripod adaptors directly

Mass:	Approx. 185 g (7 oz)

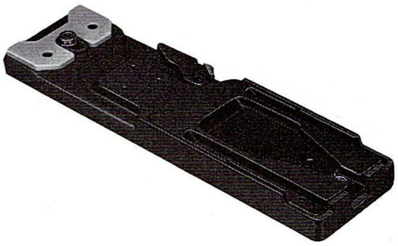


VCT-14

Tripod adaptor for DXC-D30P/ D30WSP/637P/327BP, UVW-100BP

- To attach the DXC-D30P/D30WSP/637P/ 327BP and UVW-100BP to a tripod
- Adjustable camera position with screws

Dimensions: Approx.
282 (W) × 27 (H) × 80 (D) mm
($11^{1}/_{8} \times 1^{1}/_{8} \times 3^{1}/_{4}$ inches)
Mass: Approx. 900 g (2 lb)



VCT-U14

Tripod adaptor for DXC-D30P/ D30WSP/637P/327BP, UVW-100P

- Adjustable camera position with screws

Dimensions: 282 (W) × 27 (H) × 80 (D) mm
($11^{1}/_{8} \times 1^{1}/_{8} \times 3^{1}/_{4}$ inches)
Mass: Approx. 900 g (2 lb)

WRR-855A

UHF Synthesized Tuner

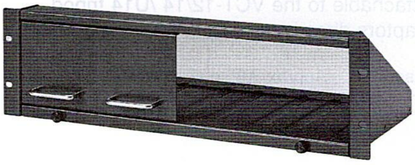
- Slot-in type portable tuner designed for use with Sony camcorders
- Water proof structure
- Compact design and lightweight only 280g (11 oz)

RMM-1800

Rack-mounting metal

- This mounting adaptor is used for installing the DXF-41 and CMA-8ACE into a 19-inch EIA standard rack which provides a clean and organized arrangement for studio system

Dimensions: 482 (W) × 136.2 (H) × 223 (D) mm
($19 \times 5^{3}/_{8} \times 8^{7}/_{8}$ inches)
Mass: 3.1 kg (6 lb 13 oz)
Supplied accessories:
Blank panel (2)



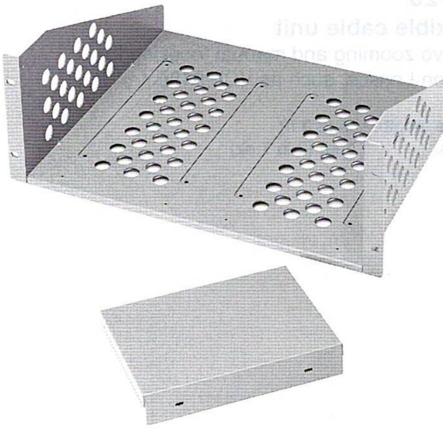
RMM-TXC7

Rack Mount Kit

- Allows two CCU-TX7P units or one unit with a waveform monitor to be be mounted into a standard 19-inch rack

Mass:	Approx. 3.7 kg (8 lb 3 oz)
Dimensions:	482 (W) × 177 (H) × 380 (D) mm (19¹/₈ × 7 × 15 inches)
Supplied accessories:	Installation manual (1) Blank panel (1)

(Note: This product is not available in some countries.)



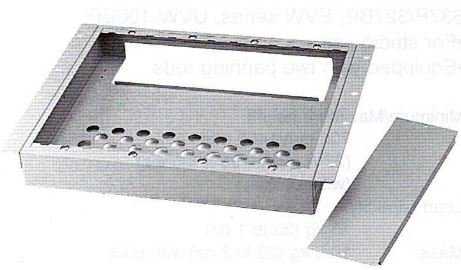
RMM-TXR7

Rack Mount Kit

- Up to four RCP-TX7P units can be installed into a standard 19-inch rack
- Comes with two blank panels

Mass:	Approx. 2.7 kg (5 lb 12 oz)
Dimensions:	482 (W) × 75 (H) × 354 (D) mm (19 × 3 × 14 inches)
Supplied accessories	Installation manual (1) Blank panel (2)

(Note: This product is not available in some countries.)



LO-32BMT

2/3-inch lens mount adaptor for DXC-327AP/9100P/950P/930P and EVW-300P

- For mounting a 2/3-inch bayonet-mount type lens on the DXC-327BP/9100P/950P/930P and EVW-300P

LO-23

Flexible cable unit

- Servo zooming and manual focusing for Fujinon Lens, such as VCL-916 BYA and VCL-714BX

Cable length: 1 m (3.3 ft)

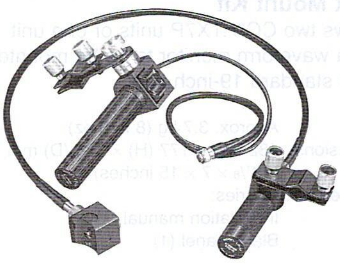
Mass: 1.2 kg (2 lb 10 oz)

LO-26

Flexible cable unit

- Servo zooming and manual focusing for Canon Lenses, such as VCL-918BY

Cable length: 1 m (3.3 ft)
Mass: 1.1 kg (2 lb 7 oz)



VSF-2000D (by Heiwa)

Tripod/dolly

- Suitable for DXC-D30P/D30WSP/637P/327BP, EVW series, UVW-100BP
- For studio use
- Equipped with two panning rods

Minimum/Maximum height:
700 mm/1400 mm
(27⁵/₈ inches/55¹/₈ inches)
(without dolly)
Load capacity:
15 kg (33 lb 1 oz)
Mass: 10.5 kg (22 lb 2 oz) with dolly

LIBEC 50SD (by Heiwa)

Tripod/dolly/carrying case

- Suitable for DXC-D30P/D30WSP/637P/327BP, EVW series, UVW-100BP
- Convenient brace as a standard equipment
- For field use
- Equipped with two extendable panning rods

Minimum/maximum height:
925 mm/1495 mm
(36.4 inches/58.9 inches)
Load capacity:
10 kg (22 lb)
Mass: 9 kg (19 lb 8 oz)
Supplied accessories:
Dolly carrying bag, Panning rods, Spreader

LIBEC 60SD

LIBEC 70SD (by Heiwa)

Tripod/dolly/carrying bag/spreader

- Suitable for DXC-D30P/D30WSP/637P/327BP, EVW series, UVW-100BP
- High efficiency and high performance equipped with patented counter balanced tilting system
- For field use
- Equipped with two extendable panning rods

Minimum/maximum height:
60SD; 810 mm/1580 mm
(31.9 inches/62.2 inches)
70SD; 820 mm/1595 mm
(32³/₈ inches/62⁷/₈ inches)
(without dolly)
Load capacity:
60SD; 13 kg (29 lb)
70SD; 15 kg (33 lb 1 oz)
Mass: 60SD; 11 kg (24 lb 10 oz)
70SD; 11.2 kg (24 lb 5 oz)
Supplied accessories:
Dolly, Carrying bag, Panning rods, Spreader

LIBEC 80SD (by Heiwa)

Tripod/dolly/carrying case

- Suitable for DXC-D30P/D30WSP/637P/327BP, EVW series, UVW-100BP, etc.
- Serial drag and counter balance system
- Recommended for field use
- Equipped with two extendable panning rods

Minimum/maximum height:	560 mm/1645 mm (22 inches/64.7 inches)
Load capacity:	17 kg (37 lb)
Mass:	13 kg (26 lb 1 oz)
Supplied accessories:	Dolly, Carrying bag, Panning rods, Spreader

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LIBEC 70PD (by Heiwa)

PEDESTAL SYSTEM

- Suitable for DXC-D30P/D30WSP/637P/327BP, EVW series, UVW-100BP
- Air can be pumped into a column even while a camera is mounted on the pedestal
- Highly suitable for small studios, event hall and hospitals

Minimum/maximum height:	955 mm/1710 mm (37$^{5}/_{8}$ inches/67$^{1}/_{2}$ inches)
Load capacity:	30 kg (66 lb 2 oz)
Mass:	21 kg (46 lb 5 oz)
Supplied accessories:	Pedestal, Head, Pan handles, Scenario plate, Low angle adapter

System DV8 (by Sachtler)
Code No. 0810
DV8 Fluid head/Tripod S14L/Spreader SP14/Cover 14pan

- Best fit for the DSR-300P
- Professional five-steps horizontal and vertical damping system now also for the new digital cameras. It ensures jerk free, precise and smooth camera movement, over a wide temperature range between -40°C (-40°F) to +60°C (+140°F)
- Five steps balance mechanism: even higher precision than before
- Equipped with one pan bar

Minimum height/Maximum height:
790 mm/1540 mm
(31 inches/61 inches)
Load capacity:
approx. 5 to 10 kg
Mass: 5 kg (11 lb) (without case)

Supplied accessories:
Spreader, one pan bar, carrying cover

Optional accessory:

Dolly 14II Code No. 7051
- The camera becomes mobile with the Dolly 14II for the studio use
- Can be compactly folded together by pressing a button and carried by using the built in handle

Mass: 4.4 kg (9 lb 11 oz)

Dolly 14II

System DV12 ENG2MCF (by Sachtler)
Code No. 1220G
DV12 Fluid head/Tripod ENG2CF/Off-ground spreader/ Rubber feet/Padded Bag ENG2

- New ENG/EFP Support System developed for the New Digital Cameras!! Best fit for DVCAM (DSR-130P) and Betacam SX Camcorder
- System weight 7 kg, Real mobile system
- Professional five-steps horizontal and vertical damping system now also for the new digital cameras. It ensures jerk free, precise and smooth camera movement, over a wide temperature range between -40°C (-40°F) to +60°C (+140°F)
- Five steps balance mechanism: even higher precision than before
- Equipped with one pan bar

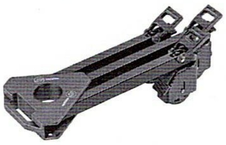
Minimum height/Maximum height:
650mm/1665 mm
(25 inches/65 inches)
Load capacity:
approx. 7 to 12 kg
Mass: 7 kg (15 lb 6 oz) (without case)

Supplied accessories:
Off-ground spreader, one pan bar, carrying cover

Optional accessory:

Dolly S, Code No. 7065
- The camera becomes mobile with the Dolly s for the studio use
- Can be compactly folded together by pressing a button and carried by using the built in handle

Mass: 4.45 kg (9 lb 13 oz)



Dolly S

System 18 Plus ENG 2 MCF

(by Sachtler)

Video 18 Plus Fluid head/Tripod ENG 2 CF/Off-ground spreader/Rubber feet/Paaded bag ENG 2

- Suitable for DXC-D30P/D30WSP/637P 327BP, EVW aeries, UVW-100BP, etc.
- New Video 18 Plus head has an illuminated bubble, Touch & Go camera lock for one hand operation, a tilt range of 180˚ under any load and many other extras
- With the two stage carbon fibre tripod and off-ground spreader, this system offers the optimum for any portable camera
- Equipped with two extendable pan bars

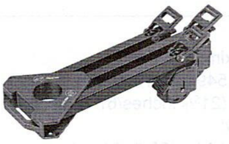
Minimum/maximum height:
580 mm/1665 mm
(22.8 inches/65.6 inches)
Load capacity:
25 kg (55 lb)
Mass: 9.5 kg (20 lb 15 oz)
Temperature range:
–40 to 60˚C (–40 to 140˚F)
Supplied accessories:
Off-ground spreader, Rubber feet,
Two pan bars, Paaded bag

Optional accessory:

Dolly S Code No. 7065

- Through the angle lock of the spinning wheel and the independent wheel brake, defined circles and precise parallel movements can be made
- For studio use
- Can be folded together and easily carried with it's built in handle

Mass: 4.45 kg (9 lb 13 oz)



Dolly S

sachtler
Support

Caddy System 01
Code No. CAD01 (by Sachtler)

- Suitable for DXC-D30P/D30WSP/637P/ 327BP, EVW series,UVW-100BP, etc.
- The patented Sachtler damping system ensures jerk free, precise and smooth camera movement, over a wide temperature range
- Equipped with one pan arm, 7+7 step fluid damping
- Sachtler flip switch fast balancing system
- Touch & Go quick camera locking system with a sliding range of 60mm

Minimum/Maximum height:
810 mm/1580 mm
(31.9 inches to 62.3 inches)
Load capacity:
12 kg (26.4 lb)
Mass: 7.1 kg (15.6 lb)
Supplied accessories:
Carbon fiber tripod, CF100long
Lightweight spreader, SP100
Transport cover, Cover 100

Vision 5-ST Package

(by Vinten)

Head/Tripod/Spreader/Soft Bag

- The high quality original "perfect-balance" system
- Suitable for DXC-D30P/D30WSP/637P/327BP, EVW series, UVW-100BP, DSR-300P

Minimum/maximum height:
534 mm/1704 mm
(21 inches/67 inches)
(with spreader)
Load capacity:
9 kg (20 lb)
Mass: 8.0 kg (17 lb 10 oz) (with bag)
Tilt range: +85˚/–75˚
Supplied accessories:
Spreader, Soft bag
Optional accessory:
Lightweight dolly (3319-3ST)

Vision II-ST Package

(by Vinten)

Head/Tripod/Spreader/Soft Bag

- The high quality original "perfect-balance" system
- Suitable for DXC-D30P/D30WSP/637P/327BP, DSR-300P, DSR-130P

Minimum/maximum height:
549 mm/1719 mm
(21$^{5}/_{8}$ inches/67$^{7}/_{8}$ inches)
Load capacity:
14 kg (30 lb 14 oz)
Mass: 8.3 kg (18 lb 5 oz) (with bag)
Tilt range: +90˚/–90˚
Supplied accessories:
Spreader, Soft bag
Optional accessory:
Lightweight dolly (3319-3ST)

PRO-130/7 or 10GP (by Vinten)

Head/Tripod/Spreader/Soft Bag

- Suitable for light-weight cameras/camcorders, such as DSR-200AP and DSR-300P
- Low-cost tripod system with smooth pan/tilt operation

Minimum/maximum height:
580 mm/1450 mm
(22$^{7}/_{8}$ inches/57$^{1}/_{8}$ inches)
Load capacity:
8 kg (17 lb 10 oz)
Mass: 2.3 kg (5 lb 1 oz)
Tilt range: ±85°
Pan range: 360°

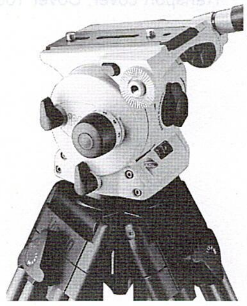
Package configuration:
PH130 Fluid Pan/Tilt Head
3451-3 Tripod
PS165 Spreader
Soft case

Vision 100-CB Package (by Vinten)

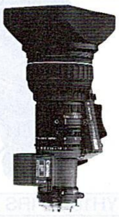
Head/Tripod/Spreader/Soft Bag

- High quality tripod system with new TF drag system. Suitable for all high-end camcorders, such as DSR-130 and DXC-D30, etc.

Minimum/maximum height:
549 mm/ 1719 mm
(21 $^{5}/_{8}$ inches/67 $^{7}/_{8}$ inches)
Load capacity:
15 kg (32 lb 14 oz)
Mass: 8.3 kg (18 lb 5 oz)
Tilt range: +90°/-90°
Supplied accessory:
Spreader, Soft bag
Optional accessory:
Lightwehght dolly (3319-3ST)



LENSES FOR DXC-D30P/D30WSP/637P, PVW-D30P/637P and DSR-130P camcorder (2/3-inch Bayonet mount type, 12-pin connector)

				
	J9a × 5.2BIRS	J15a × 8BIRS	J21ax7.8BIRS	YJ18 × 9BIRS
Image format	2/3-inch	2/3-inch	2/3-inch	2/3-inch
Mount	Sony bayonet	Sony bayonet	Sony bayonet	Sony bayonet
Focal length	5.2 to 47 mm	8 to 119 mm	7.8 mm to 164 mm	9 to 162 mm
Zoom ratio	9×	15×	21×	18×
Zoom control	Manual & motorized	Manual & motorized	Manual/Motorized	Manual & motorized
Iris control	Auto & manual	Auto & manual	Manual/Auto	Auto & manual
Maximum aperture ratio	1.8	1.7	1.8	1.8
Minimum object distance	0.3 m	0.65 m	0.8 m	0.9 m
Zoom extender	2.0×	2.0×	2.0×	2.0×
Macro	Yes	Yes	Yes	Yes
Filter size	82 mmø	82 mmø	105 mm	82 mmø
Mass	1.8 kg (3.97 lb)	1.4 kg (3 lb 2 oz)	1.7 kg (3 lb 11 oz)	1.5 kg (2.87 lb)
Dimensions	250.94 mm(L) (10 inches)	266.9 mm(L) (10 5/8 inches)	214 mm(L) (8 1/2 inches)	194.9 mm(L) (7 3/4 inches)
Note	By Canon	By Canon	By Canon	By Canon

	A10 × 4.8BEVM-28	A12 × 6.8BRM-58	A15 × 8BEVM-28B	A16 × 9BERM-28
Image format	2/3-inch	2/3-inch	2/3-inch	2/3-inch
Mount	Sony bayonet	Sony bayonet	Sony bayonet	Sony bayonet
Focal length	4.8 to 48 mm	6.8 to 82 mm	8 to 120 mm	9 to 144 mm
Zoom ratio	10×	12×	15×	16×
Zoom control	Manual & motorized	Manual & motorized	Manual & motorized	Manual & motorized
Iris control	Auto & manual	Auto & manual	Auto & manual	Auto & manual
Maximum aperture ratio	1.8	2.5	1.7	1.8
Minimum object distance	0.3 m	0.5 m	0.65 m	0.9 m
Zoom extender	2.0×	—	2.0×	2.0×
Macro	Yes	Yes	Yes	Yes
Filter size	127 mmø	95 mmø	82 mmø	77 mmø
Mass	1.85 kg (4.0 lb)	1.43 kg (3 lb 3 oz)	1.38 kg (3 lb 1 oz)	1.35 kg (3 lb)
Dimensions	244 mm(L) (9 5/8 inches)	196 mm(L) (7 3/4 inches)	205.8 mm(L) (8 1/8 inches)	183.3 mm(L) (7 1/4 inches)
Note	By Fujinon	By Fujinon	By Fujinon	By Fujinon

	A19 × 8.7BRM-28	A19 × 8.7BERM-28	A20 × 8BEVM-28B	VCL-918BY
Image format	2/3-inch	2/3-inch	2/3-inch	2/3-inch
Mount	Sony bayonet	Sony bayonet	Sony bayonet	Sony bayonet
Focal length	8.7 to 165 mm	8.7 to 165 mm	8 to 160 mm	9 to 162 mm
Zoom ratio	19×	19×	20×	18×
Zoom control	Manual & motorized	Manual & motorized	Manual & motorized	Manual & motorized
Iris control	Auto & manual	Auto & manual	Auto & manual	Auto & manual
Maximum aperture ratio	1.8	1.8	1.7	1.8
Minimum object distance	0.9 m	0.9 m	0.8 m	0.9 m
Zoom extender	No	2.0×	—	—
Macro	Yes	Yes	Yes	Yes
Filter size	82 mmø	82 mmø	95 mmø	82 mmø
Mass	1.35 kg (2 lb 15 oz)	1.45 kg (3 lb 3 oz)	1.78 kg (3 lb 15 oz)	1.3 kg (2.7 lb)
Dimensions	200 mm(L) (7 7/8 inches)	200 mm(L) (7 7/8 inches)	221.9 mm(L) (8 3/4 inches)	171.5 mm(L) (6 7/8 inches)
Note	By Fujinon	By Fujinon	By Fujinon	By Canon

LENSES FOR DSR-300P (1/2-inch Bayonet mount type, Hot-shoe connector)

	VCL-714BXA	YH18x6.7IRS SY14	YH18x6.7KRS SY14	S12 × 5BRM-38
Image format	½-inch	½-inch	½-inch	½-inch
Mount	Sony ½-inch bayonet	Sony ½-inch bayonet	Sony ½-inch bayonet	Sony bayonet
Focal length:	7.5 mm to 105 mm	6.7 mm to 121 mm	6.7 mm to 121 mm	5 mm to 60 mm
Zoom ratio:	14×	18×	18×	12×
Zoom control:	Manual/Motorized	Manual/Motorized	Manual/Motorized	Manual/Motorized
Iris control:	Manual/Auto	Manual/Auto	Manual/Auto	Manual/Auto
Maximum aperture ratio:	1.4	1.4	1.4	1.8
Minimum object distance:	1.1 m	0.9 m	0.9 m	0.5 m
Zoom extender	NO	2.0×	NO	NO
Macro	Yes	Yes	Yes	Yes
Filter size:	72 mm	82 mm	82 mm	82 mm
Mass:	1.1 kg (2 lb 6 oz)	1.5 kg (3 lb 4 oz)	1.3 kg (2 lb 13 oz)	1.2 kg (2 lb 10 oz)
Dimensions:	157.5 mm(L) (6 ¼ inches)	196 mm(L) (7 ¾ inches)	178 mm(L) (7 ⅛ inches)	183 mm(L) (7 ¼ inches)
Lens connectors	Hot-shoe type	Hot-shoe type	Hot-shoe type	Hot-shoe type
Notes	by Fujinon	by Canon	by Canon	by Fujinon

LENSES FOR DXC-327BP and UVW-100BP (1/2-inch Bayonet mount type, Hot-shoe connector)

	VCL-713BX	YH14 × 7.3KRS	S16 × 6.7BRM-18	S16 × 6.7BERM-18
Image format	½-inch	½-inch	½-inch	½-inch
Mount	Sony ½-inch bayonet	Sony bayonet	Sony ½-inch bayonet	Sony ½-inch bayonet
Focal length	7.5 to 97.5 mm	7.3 to 102 mm	6.7 to 107mm	6.7 to 107mm
Zoom ratio	13×	14×	16×	16×
Zoom control	Manual & motorized	Manual & motorized	Manual & motorized	Manual & motorized
Iris control	Auto & manual	Auto & manual	Auto & manual	Auto & manual
Maximum aperture ratio	1.4	1.4	1.4	1.4
Minimum object distance	1.0 m	1.0 m	0.9m	0.9m
Zoom extender	—	—	—	2.0×
Macro	Yes	Yes	Yes	Yes
Filter size	72 mmø*	82 mmø	77mmø	77mmø
Mass	910 g (2 lb)	1.0 kg (2.2 lb)	1.2 kg (2 lb 10 oz)	1.35 kg (3 lb)
Dimensions	147.5 mm(L) (5 7/8 inches)	184 mm(L) (7 ¼ inches)	165mm(L) (6 ½ inches)	188.5mm(L) (7 ½ inches)
Lens connector	Hot-shoe type	Hot-shoe type	Hot-shoe type	Hot-shoe type
Notes	By Canon	By Canon	By Fujinon	By Fujinon

*82mmø Filter is also usable by fitting it in the lens hood.

	S19 × 6.5BRM-38	S19 × 6.5BERM-38
Image format	½-inch	½-inch
Mount	Sony ½-inch bayonet	Sony ½-inch bayonet
Focal length	6.5 to 123 mm	6.5 to 123 mm
Zoom ratio	19×	19×
Zooming control	Manual & motorized	Manual & motorized
Iris control	Auto & manual	Auto & manual
Maximum aperture ratio	1.4	1.4
Minimum object distance	0.9m	0.9m
Zoom extender	No	2.0×
Macro	Yes	Yes
Filter size	82 mmø	82 mmø
Mass	1.35 kg (2 lb 15 oz)	1.45 kg (3 lb 3 oz)
Dimensions	204 mm(L) (8 ⅛ inches)	204 mm(L) (8 ⅛ inches)
Lens connector	Hot-shoe type	Hot-shoe type
Notes	By Fujinon	By Fujinon

DXC-H10

2/3 inch 3-CCD Colour Video Camera (not available in Europe)

•Three 2/3 inch IT (Interline Transfer) Hyper HAD® CCDs •New HDVS (High Definition Video System) camera with 2,000,000 effective picture elements and 1000TV lines of resolution •High sensitivity of F8.0 at 2,000 lux •Compact and light weight: 1200 g •CCD IRIS®, AGC (Automatic Gain Control), and Auto Iris function control wide range of incoming light levels •Four pattern Light Metering System with selectable detection method (Multi, Average, Spot, and Peak Mode) •Three white balance modes (AWB, ATW, Manual) •Ten step electronic shutter speed selection •On-screen programmable menu functions •Full function control from the rear panel or the optional RM-C950 Remote Control Unit •Precise picture controls including Linear Matrix, Vertical Shading Compensation, Advanced Detail, Knee, Master Pedestal, and Negative/Positive mode •Flash synchronization function •Various electronic shutter functions including Clear Scan™, Long Term Exposure, RR (Restart Reset), and LTR (Long Term Reset)

Supplied Accessories:	Lens mount cap (1) Name sheet for the buttons on the RM-C950 (1) Operating Instructions (1)
Optional Accessories:	Camera Adaptor CMA-H10 Remote Control Unit RM-C950 Digital Scan Converter DSC-1024G Camera Cable CCZ-A2/A5/A10/A25/A50/A100 Microscope adaptors and couplers MVA-690, MVAC-33-0/N/SM Monitor cable CCXC-9DBS, D-SUB 9-pin ↔ 5 BNC

Specifications

Image system/optical system

Image device:	Three 2/3-inch Interline Transfer Hyper HAD CCDs
Picture elements:	1920 (horizontal) × 1035 (vertical)
Shooting system:	CCD 3-chip
Lens:	Prism type, F1.4
Lens mount:	2/3 inch bayonet type

Video system

Synchronization:	Internal/external synchronization, automatic switching
Signal format:	HD format (conforms to BTA standard)
Output frequency (horizontal/vertical):	33.75 kHz/60 Hz or 33.71 kHz/59.94 Hz (60 Hz or 59.94 Hz switchable)

Functions/performance

Horizontal resolution:	1000TV lines
Min. illumination:	16 lx (F1.4, G or Y: 100%, gain: + 12 dB)
Sensitivity:	2000 lux (F8, 3,200K) system
Signal-to-noise ratio:	50 dB (Y, Gain: 0 dB, Gamma: OFF, 100 kHz to 30 MHz)
Gain control:	Fixed: 0/6/12 dB selectable AGC: Automatically adjusted within range of 0 dB to 12 dB
White balance:	AWB: automatic adjustment (2,500 K to 9,000 K) (R. PAINT and B. PAINT adjustable) ATW: Automatic tracing (R. PAINT and B. PAINT adjustable) MANU: Manual adjustment (R. GAIN and B. GAIN adjustable)
Colour temperature:	3200 K/5600 K switchable
Electronic Shutter:	CCD IRIS: Automatic exposure control (within range of 1/60-1/10,000 seconds) STEP: 1/100 (flickerless mode), 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000, 1/20000, 1/40000, 1/100000 s MANU: 2 to 256 frames (low speed mode frame), 1 to 560H (high speed mode)
External Trigger Shutter:	RR (Restart Reset) EXT. TRIG LTR (Long-term reset)
AE mode:	MULTI, AVERAGE, SPOT, PEAK
Knee:	HI, LOW, AUTO
Master Pedestal:	Adjusts pedestal levels of G, B, and R channels simultaneously
Linear Matrix:	ON/OFF switchable
Vertical Shading compensation:	OFF/MANUAL switchable
Gamma compensation:	ON/OFF switchable
Negative/Positive mode:	ON/OFF switchable
Accumulation mode:	Field/frame switchable
Detail compensation:	ON/OFF switchable
Flash synchronization:	ON/OFF switchable
Video signal output mode:	GBR/YPB/PR switchable
Sync signal format:	Tri-level sync signal/Bi-level switchable
Sync signal input/output mode:	Input/output switchable (HD/VD and SYNC signals switched simultaneously)
Horizontal phase:	Adjustable

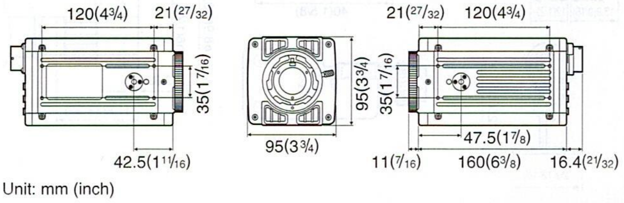
Inputs/outputs

Video input/output signals:	Y/R/G/B output: 1 Vp-p (75 Ω) PB/PR output: 0.7 Vp-p (75 Ω) HD/VD input/output: 1 Vp-p (75 Ω) SYNC input/output: 0.6 Vp-p (tri-level, 75 Ω), 0.3 Vp-p (bi-level) WEN pulse: TTL level, negative
External sync input:	SYNC or HD/VD switched automatically
External trigger input:	TTL level, negative Pulse width: more than 3H
Input/output connectors:	MONITOR: D-sub 9-pin CAMERA ADAPTOR: 26-pin LENS IRIS: 12-pin LENS CTRL: 12-pin FLASH: small coaxial type

General

Power supply:	15 V DC (10.5 to 15 V)
Power consumption:	Approx. 25 W
Operating temp:	-5 to 45°C (23 to 113°F)
Storage temp:	-20 to 60°C (-4 to 140°F)
Operating humidity:	20% to 80% (free of condensation)
Storage humidity:	20% to 95% (free of condensation)
Mass:	1.2 kg (2 lb 10 oz)

Dimensions

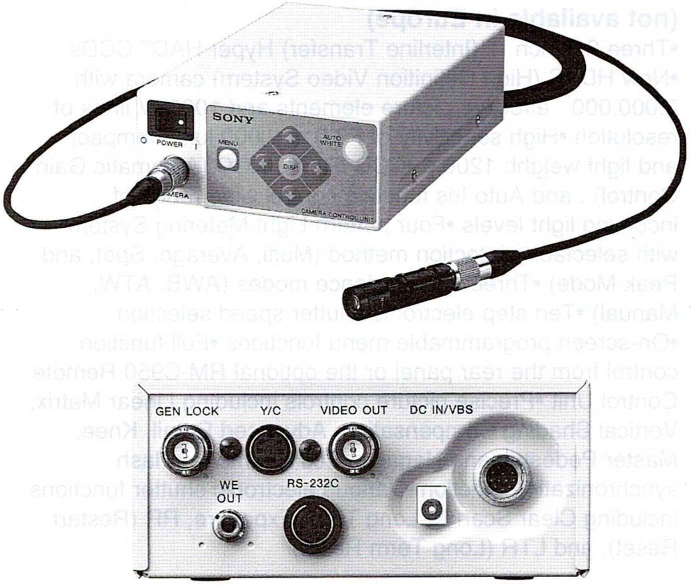


Unit: mm (inch)

DXC-LS1P

CCD Colour Video Camera

•Extremely small and compact camera composed of a camera head and a camera control unit •1/4-inch Hyper HAD CCD adoption •High picture quality with 460TV lines, a high sensitivity of F5.6 at 2000 lx and an excellent signal-to-noise ratio •Advanced colour matrix function allows you to adjust R, G and B colours independently for accurate colour reproduction •Easy call-up function of favorite settings (2 patterns) •Exchangeable camera head •AE control function (CCD IRIS function combined AGC) provides automatic control over incoming light •Automatic backlight adjustment •Built-in electronic zoom function (x1.00 to x3.00) •Four-pattern Light Metering System with selectable detection method •Alternative White Balance Control modes - AWB, ATW, 5600 K or 3200 K (Trimming with R/B paint function is possible with AWB, 5600 K and 3200 K) •Shutter speed control capability for long term exposure •With variable gamma function, the contrast of the picture can be changed for a clear view •Enhancer function provides crisper, sharper images •Three different sizes of colour bars •Flicker canceller is provided, freeing the electronic shutter •Positive films can be shot as negative, or vice versa •B&W mode for sharp images free from colour noise •Built-in RS-232C interface •Genlock capability with VBS •Y/C or VBS output •Optional CMA-D2CE or AC-E90HG can be used for power supply

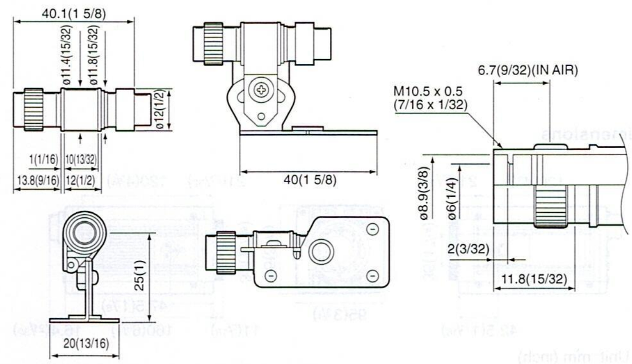


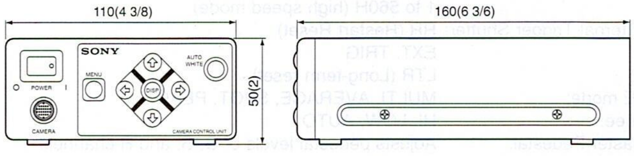
Supplied Accessories:	Tripod adaptor (1) Lens mount cap (1) Operation manual (1)

Specifications

Image device:	1/4-inch Interline Transfer Hyper HAD CCD
Picture elements:	752(H) × 582(V)
Sensing area:	3.2 × 2.4 mm (1/4-inch)
Scanning system:	625 lines, 2 : 1 interlace
Sync system:	Internal or external with VBS
Phase control:	H (0 to +255) / SC (0/180, 0 to +255)
Horizontal resolution:	460TV lines
Lens mount:	Ultra mount
Sensitivity:	2000 lx with F5.6
Minimum illumination:	10 lx (F1.2)
Gain control:	AGC / 0 to -12dB (1dB steps) switchable
Electronic shutter:	OFF/MANUAL/AUTO MANUAL: 1/50, 1/100, 1/125, 1/250, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000, 1/20000, 1/40000 (seconds) 2 to 512 fields, ODD/EVEN switchable
Signal-to-noise ratio:	44 dB
White balance:	ATW/AWB/5600K/3200K selectable (R/B paint: –128 to 0 to +128)
AE mode:	ON/OFF switchable
AE level:	–60 to 0 to +60
Light metering system:	Backlight compensation/Full/Centre (Large)/Centre (Small)/Slit (Large)/Slit (Small)
Detection method:	Peak/average switchable
Master pedestal:	–10 to 0 to +40
H Enhancer:	–16 to 0 to +15
Zoom:	ON (×1.00 to ×3.00)/OFF switchable
Colour matrix:	ON/OFF switchalbe R : –60 to 0 to +60 G : –60 to 0 to +60 B : –60 to 0 to +60
Gamma:	–16 to 0 to +15
Colour mode:	ON/OFF switchable
Colour bars:	FULL/HI/LOW/OFF switchable
Negative/Positive reverse:	ON/OFF switchable
Menu memory:	2 pages
Flicker canceller:	AUTO/OFF switchable
Baud rate:	19200, 9600, 4800
Video out:	VBS: 1.0 Vp-p, 75 Ω, sync negative Y/C: Y : 1.0 Vp-p, 75 Ω, sync negative C : 0.3 Vp-p, at burst level, 75 Ω
Operating temperature:	0˚C to 40˚C (32˚F to 104˚F)
Storage temperature:	–20˚C to 60˚C (-4˚F to 140˚F)
Power requirements:	DC 12 V (Supplied from CMA-D2CE) DC 9 V (Supplied from AC-E90HG)
Power consumption:	5 W
Maximum cable length:	10 m using 10m optional cable (CCMC-16P10)
Mass:	Camera head (without lens and supplied cable) : 8 g (0.3 oz) Camera control unit : Approx. 665 g (1 lb 7 oz)
Connectors:	Camera head : CAMERA (16-pin) Camera control unit : CAMERA (20-pin), VIDEO OUT (BNC), DC IN/VBS (12-pin, DC jack), Y/C (DIN 4-pin), GENLOCK (BNC), RS-232C (8-pin), WE OUT (PIN)

Dimensions





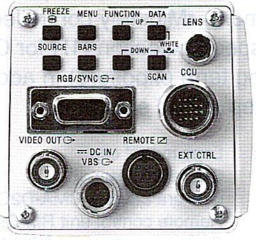
Unit: mm (inch)

DXC-9100P

3-CCD Colour Video Camera

•Progressive scan 3-CCD camera featuring full-frame dynamic image capturing •Square picture pixels adoption (8.3 μm x 8.3 μm) for more accurate measurements •Three alternative signal output capability - Normal mode and Frame shutter mode (2:1 interlace) and Non-interlaced mode • High picture quality with 800TV lines, a high sensitivity of F5.6 at 2000lx and an excellent S/N raito of 57 dB •By utilizing the built-in frame memory, freeze function (continuous freeze mode or source/freeze mode is selectable) and long term exposure function can be controlled without external equipment •Three-pattern Light Metering System with selectable detection method •Remote control from the optional RM-C950 Remote Control Unit or CCU-M5P Camera Control Unit is possible •Built-in RS-232C interface •On-screen four divided menu with User Preset function for easy set-up •Digital control CCD IRIS function (equivalent to four F-stops) and AGC automatically adjusts a wider range of incoming light levels •Alternative White Balance Control modes - AWB, ATW (Trimming with R/B paint function is possible) or manual (R/B gain level adjustment) •Variable speed electronic shutter such as External Trigger Shutter, Clear Scan function in addition to the conventional eight-step selection •RGB output via a 9-pin D-sub connector •Y/C or VBS output can be selected from the 9-pin D-sub connector •Composite signal output via a BNC connector •Genlock capability with VBS or BS signals •Accepts bayonet-mount lenses with a hot-shoe connection •Optional CMA-D2CE can be used for power supply

Progressive 3CCD
SONY

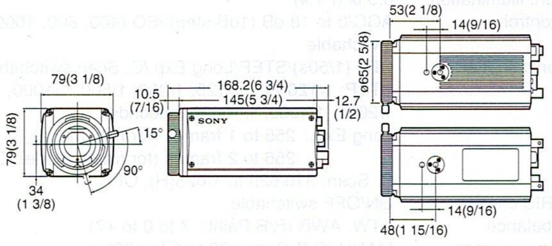


Supplied Accessories:	Lens mount cap (1) Operation manual (1) Buttons label for the optional RM-C950 Remote Control Unit

Specifications

Image device:	1/2-inch Interline Transfer Hyper HAD CCD (x3)
Picture elements:	782(H) × 582(V)
Sensing area:	6.4 × 4.8 mm
Scanning system:	PAL standard format : 625 lines, 2:1 interlace Non-interlaced format : 1/50, Non-interlaced
Horizontal frequency:	PAL standard format : 15.625 kHz Non-interlaced format : 31.25 kHz
Vertical frequency:	PAL standard format : 50 Hz Non-interlaced format : 50 Hz
Sync system:	Internal or external with VBS, BS, VS, SYNC or HD/VD
Phase control:	H (-99 to 0 to +99) / SC (0/180, -99 to 0 to +99)
Green-on-sync:	ON/OFF switchable
Horizontal resolution:	800 TV lines
Vertical resolution:	575 TV lines
Lens mount:	38 mm bayonet mount
Sensitivity:	2000 lx with F5.6 (3200 K)
Minimum illumination:	15 lx (F1.4, +18 dB)
Signal-to-noise ratio:	57 dB
Gain control:	AGC / 0 to 18 dB (1 dB steps) switchable
Electronic shutter:	OFF/STEP/VARIABLE/CCD IRIS selectable STEP : 1/50, 1/120, 1/125, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds) 0.1, 0.2, 0.3, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 5.0, 6.0, 7.0, 8.0 (seconds) VARIABLE : 255 to 1 frame, 312/625 to 1/625H
AE Window:	Large/Medium/Spot (Peak/average switchable)
Colour temperature:	3200 K/5600 K
White balance:	ATW, AWB (R/B Paint : -10 to 0 to +10) MANU (R/B Gain : -127 to 0 to +127)
External trigger shutter:	ON/OFF switchable
Freeze control:	INT. CTRL/EXT.CTRL switchable
Master pedestal:	–99 to 0 to +99
Detail:	ON/OFF switchable (-99 to 0 to +99)
Gamma:	ON/OFF switchable
User preset:	A/B switchable
User protect:	ON/OFF switchable
Baud rate:	9600, 4800, 2400, 1200
Trigger pulse:	Negative pulse/Positive pulse switchable
Video out:	VBS: 1.0 Vp-p, 75 Ω, sync negative RGB : 0.7 Vp-p, 75 Ω Y/C : Y : 1.0 Vp-p, 75 Ω, sync negative C : 0.3 Vp-p, at burst level, 75 Ω VGA : RGB : 0.7 Vp-p SYNC/HD/VD : 2.0 Vp-p, 75 Ω WEN : 5.0 Vp-p, high impedance
External sync input:	VBS/BS/VS/SYNC/HD/VD (VBS : 1.0 Vp-p or burst 0.3 Vp-p, SYNC : 0.3 Vp-p, HD/VD : 2.0 to 4.0 Vp-p), 75 Ω
External trigger input:	Trigger pulse, low level : 0 to 0.5 V, high level : 4.5 to 5.0 V, high impedance
Operating temperature:	–5˚C to 45˚C (23˚F to 113˚F)
Storage temperature:	–20˚C to 60˚C (-4˚F to 140˚F)
Power requirements:	DV 12 V (Supplied from CMA-D2CE or CCU-M5P)
Power consumption:	Approx. 12 W
Mass:	Approx. 790 g (1 lb 11 oz)
Connectors:	LENS (6-pin), RGB/SYNC (D-sub 9-pin), DC IN/VBS (12-pin), VIDEO OUT (BNC), CCU (20-pin), REMOTE (8-pin), EXT CTRL (BNC), HOT SHOE (14-pin)

Dimensions



Unit: mm (inch)

DXC-950P

3-chip CCD colour video camera

•Multi-purpose 3-CCD compact camera for versatile industrial video applications •Newly developed 1/2-inch IT Power HAD sensor CCDs •High horizontal resolution of 750TV lines •Extremely high sensitivity of F8.5 at 2000 lx •Excellent signal-to-noise ratio of 58 dB •Excellent colour reproduction •Convenient operational functions including Flash Synchronization and Three-pattern Light Metering System •Various precise picture controls •Field or frame integration mode selectable •Remote control from the optional RM-C950 Remote Control Unit or CCU-M5P Camera Control Unit •Built-in RS-232C serial interface •On-screen four divided menu with Memory Bank function for easy set-up •Digital control CCD IRIS function (equivalent to six F-stops) and AGC automatically adjusts a wide range of incoming light level •Alternative White Balance Control Modes - AWB, ATW (Trimming with R/B Paint function is possible) or manual (R/B gain level adjustment) •Minutely controlled electronic shutter speed - Manual speed selection (1H for Clear Scan or 1 frame step for long term exposure) in addition to the conventional 8-step speed selection

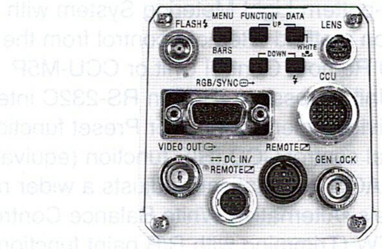
Supplied accessories:	Lens mount cap Operation manual
Optional accessories:	Camera adaptor CMA-D2CE Remote control unit RM-C950 Camera control unit CCU-M5P Digital Still Recorder DKR-700P DC cable CCDC-5/10/25/50A/100A 12-pin multi-core cable CCMC-12P02/05/10/25 Component/RGB cable CCXC-9DD Component/RGB cable CCXC-9DB Component/RGB cable CCMC-9DS/9DBS Component/RGB cable CCMC-9DSMN Camera cable CCTQ-3RGB Camera cable CCTZ-3RGB Camera cable CCTZ-3YC Microscope adaptor with auto iris MVA-40 Microscope adaptor MVA-41A Microscope adaptor (one way) MVA-265 Coupler for NIKON microscopes except the SMZ-10 series MVAC-33-N Coupler for NIKON SMZ-10 series microscopes MVAC-33-SM Coupler for OLYMPUS microscopes MVAC-33-O Coupler for ZEISS microscopes except AXIOVERT 100/135 series and SV series ZBB Coupler for ZEISS AXIOVERT 100/135 series and SV series microscopes ZSV 2/3-inch Lens Mount Adaptor LO-32BMT Manual zoom lens VCL-707BXM Remote zoom lens VCL-712BXEA Remote zoom lens VCL-714BXEA Remote zoom lens VCL-717BXEA

Specifications

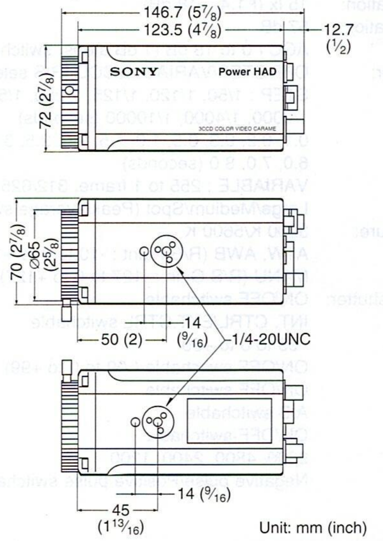
Image device:	1/2-inch Interline Transfer Power HAD CCD (×3)
Picture elements:	752(H) × 582(V)
Sensing area:	6.4 mm × 4.8 mm
Video signal system:	PAL standard
Scanning system:	625 lines, 2:1 interlace
Sync system:	Internal or external with VBS or BS
Horizontal resolution:	750TV lines
Lens mount:	38 Bayonet mount
Sensitivity:	2000 lx with F8.5
Minimum illumination:	6.5 lx (F1.4)
Gain control:	AGC/0 to 18 dB (1dB step)/ISO (400, 800, 1600) switchable
Electronic shutter:	OFF (1/50s)/STEP/Long Exp./C. Scan switchable STEP: 1/120(FL), 1/125, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds) Long Exp.: 255 to 1 frames (for field mode), 256 to 2 frames (for frame mode), OFF C. Scan: 310/625 to 1/625(H), OFF
CCD IRIS control:	ON/OFF switchable
White balance:	ATW, AWB (R/B Paint: -7 to 0 to +7) MANU (R/B Gain: –99 to 0 to +99)
Signal-to-noise ratio:	58 dB
Linear matrix:	ON/OFF switchable
Shading compensation:	OFF/1 to 9
Master pedestal:	–99 to 0 to +99
Detail:	–99 to 0 to +99
Phase control:	H/SC phase control H. phase: –99 to 0 to +99 SC phase: 0/180 Fine: –99 to 0 to +99
Gamma:	ON/OFF switchable
Knee:	1/2 switchable
Green-on-sync:	ON/OFF switchable
Memory bank:	A/B switchable
Memory protect:	ON/OFF switchable
Data send:	A>B, B>A switchable
Baud rate:	9600, 4800, 2400, 1200
Flash mode:	OFF/master/slave switchable
Printer trigger:	ON/OFF switchable
Video out:	VBS: 1.0 Vp-p, 75 Ω, sync negative RGB: 0.7 Vp-p, 75 Ω Y/C: Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, 75 Ω, without sync Y/R-Y/B-Y: Y: 1.0 Vp-p, 75 Ω R-Y: 0.525 Vp-p, 75 Ω B-Y: 0.525 Vp-p, 75 Ω
Operating temperature:	–5 to 45°C (23 to 113°F)
Storage temperature:	–20 to 60°C (–4 to 140°F)
Power requirements:	DC 12 V (supplied from CMA-D2CE or CCU-M5P)
Power consumption:	7.8 W
Mass:	Approx. 670 g (1 lb 8 oz)
Connectors:	LENS (6-pin), RGB/SYNC (D-sub 9-pin), GENLOCK IN (BNC), DC IN/REMOTE (12-pin), VIDEO OUT (BNC), CCU (20-pin), FLASH (Synchronous socket), REMOTE (8-pin)

SONY
Power HAD

Lens is optional



Dimensions

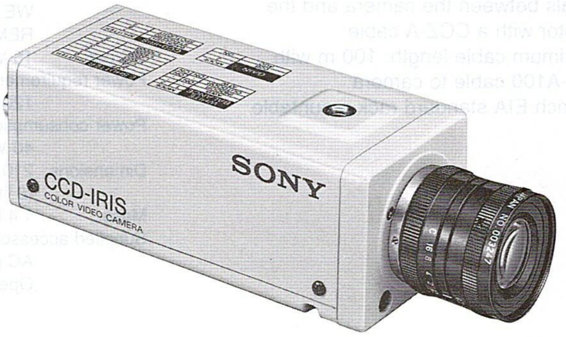


Unit: mm (inch)

DXC-107AP

CCD colour video camera

•High resolution 1/2-inch IT Hyper HAD sensor CCD offers high quality picture •High sensitivity in minimum illumination of only 4.5 lx with F1.2 lens •Signal-to-noise ratio of 46 dB •High horizontal resolution of 460TV lines •S-video output is available through the CMA-D2CE Camera Adaptor •Four alternative white balance control: Automatic control modes—AWB (Auto White Balance)/ATW (Auto Tracing White), Preset modes—INDOOR (3200 K)/OUTDOOR (5600 K) •3-position selectable CCD-IRIS covers various light conditions—BACKLIGHT/STANDARD/SPOTLIGHT •Variable speed electronic shutter •Built-in four digit ID number generator •C-mount adoption •External genlock capability of VS •Together with the CMA-D7CE/YS-W250P Camera Adaptor, video and sync signals, and DC power can be transmitted up to 300 metres away through a single 5C-2V coaxial cable •Remarkably compact and lightweight



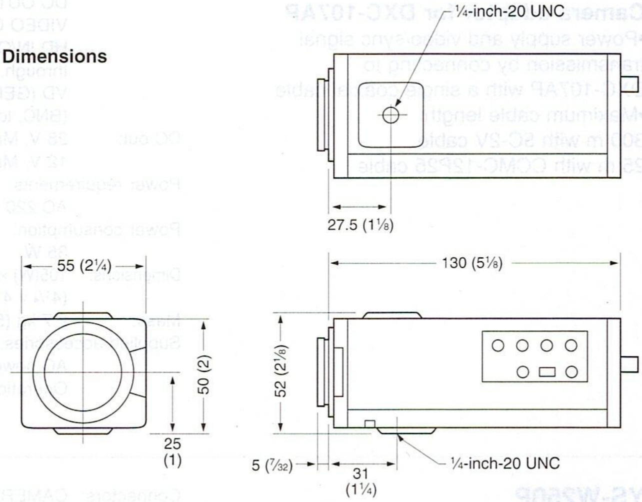
Lens is optional

Supplied accessories:	Lens connector Lens mount cap Operating instruction manual
Optional accessories:	Camera adaptor CMA-D7CE Camera adaptor CMA-D2CE Camera adaptor YS-W250P DC cable CCDC-5/10/25/50A/100A 12-pin multi-core cable CCMC-12P02/05/10/25 Microscope adaptor MVA-12 Coupler for NIKON microscopes except the SMZ-10 series MVAC-33-N Coupler for NIKON SMZ-10 series microscopes MVAC-33-SM Coupler for OLYMPUS microscopes MVAC-33-O Coupler for ZEISS microscopes except AXIOVERT 100/135 series and SV series ZBB Coupler for ZEISS AXIOVERT 100/135 series and SV series microscopes ZSV

Specifications

Image device:	1/2-inch InterlineTransfer Hyper HAD CCD
Picture elements:	752 × 582 (V)
Sensing area:	6.4 mm × 4.8 mm
Video signal system:	PAL standard
Sync system:	Internal or external with VS
Horizontal resolution:	460TV lines
Lens mount:	C mount
Sensitivity:	F5.6 at 2,000 lx (AGC off)
Minimum illumination:	4.5 lx with F1.2 (AGC on)
Gain control:	AGC ON/OFF switchable
Electronic shutter:	OFF, 1/120, 1/250, 1/1000, 1/2000, 1/4000, 1/10000 (seconds)
S/N ratio:	46 dB
CCD IRIS control:	BACKLIGHT/STANDARD/SPOTLIGHT switchable
Phase control:	H phase control
Video out:	VBS: 1.0 Vp-p, 75 Ω, sync negative Y/C: Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, 75 Ω, without sync
Operating temperature:	0 to 40°C (32 to 104°F)
Power requirements:	DC 12 V from CMA-D2CE/D7CE DC 28 V from CMA-D7CE/YS-W250P
Power consumption:	3.3 W using CCMC-12P multi-core cable or CCDC DC cable (DC 12 V) 6.3 W using coaxial cable (DC 28 V)
Maximum cable length:	300 m using 5C-2V coaxial cable and CMA-D7CE/YS-W250P 100 m using CCDC-100A DC cable and CMA-D2CE 25 m using CCMC-12P25 multi-core cable and CMA-D2CE/D7CE
White balance:	AUTO: ATW or AWB PRESET: 3200 K or 5600 K
Mass:	Approx. 360 g (12.7 oz) without lens
Connectors:	DC IN/VIDEO OUT (BNC) DC IN (12-pin) LENS (4-pin)

Dimensions



Unit: mm (inch)

4. Sensor camera accessories

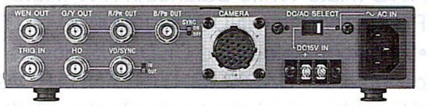
CMA-H10

Camera adaptor for DXC-H10

- Transmits DC power and video sync signals between the camera and the adaptor with a CCZ-A cable
- Maximum cable length: 100 m with CCZ-A100 cable to camera
- 19-inch EIA standard rack mountable

Connectors: CAMERA (26-pin)
VIDEO OUT (BNC)
SYNC IN/OUT (BNC)
TRIGGER INPUT (BNC)
WE PULSE OUTPUT (BNC)
REMOTE (mini DIN 8-pin)
DC out: 15 V
Power requirements:
120 V AC, 50/60 Hz
Power consumption:
40 W (AC), 30 W (DC)
Dimensions: 210 (W) × 44 (H) × 210 (D) mm
(8 ⅜ × 1 ¾ × 8 ⅜ inches)
Mass: 1.4 kg (3 lb 1 oz)
Supplied accessories:
AC power cord
Operation manual

SONY
POWER
CAMERA ADAPTER CMA-H10
CABLE COMP
REMOTE


WEN OUT
G/Y OUT
R/Pr OUT
B/Pb OUT
TRIG IN
HD
VD/SYNC
CAMERA
DC/AC SELECT
DC15V IN
AC IN

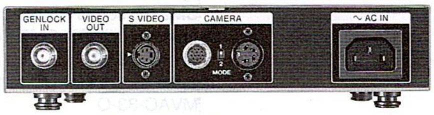
CMA-D2CE

Camera adaptor for DXC-9100/950P/107AP/LS1P

- Supplies DC power with a CCDC cable to cameras
- Transmits DC power and video/sync signals between the camera and the adaptor with a CCMC cable
- Maximum cable length:
  100 m with CCDC-100A cable
  25 m with CCMC-12P25 cable
- 19-inch EIA standard rack mountable

Connectors: CAMERA (12-pin MULTI)
CAMERA (4-pin DIN)
VIDEO OUT (BNC)
S VIDEO OUT
(Mini DIN 4-pin)
GEN-LOCK IN (BNC)
DC out: 13 V, 1.3 A
Power requirements:
AC 100 to 240 V, 50/60 Hz
Power consumption:
24.5 W
Dimensions: 210(W) × 50(H) × 200(D) mm
(8 3/8 × 2 × 7 7/8 inches)
Mass: 1.1 kg (2 lb 7 oz)
Supplied accessories:
AC power cord
Operation manual

SONY
POWER
CAMERA ADAPTOR CMA-D2


GENLOCK IN
VIDEO OUT
S VIDEO
CAMERA
MODE
~ AC IN

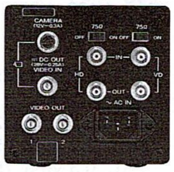
CMA-D7CE

Camera adaptor for DXC-107AP

- Power supply and video/sync signal transmission by connecting to DXC-107AP with a single coaxial cable
- Maximum cable length:
  300 m with 5C-2V cable
  25 m with CCMC-12P25 cable

Connectors: CAMERA (12-pin)
DC OUT/VIDEO IN (BNC)
VIDEO OUT (BNC × 2)
HD IN/OUT (BNC, loop-through, 75 Ω ON/OFF)
VD (GENLOCK) IN/OUT
(BNC, loop-through, 75 Ω ON/OFF)
DC out: 28 V, Max. 0.25 A (BNC)/
12 V, Max. 0.3 A (12-pin)
Power requirements:
AC 220 to 240 V, 50/60 Hz
Power consumption:
35 W
Dimensions: 105(W) × 104.5(H) × 254.7(D) mm
(4 1/4 × 4 1/4 × 10 1/8 inches)
Mass: 2.7 kg (5 lb 15 oz)
Supplied accessories:
AC power cord
Operation manual

SONY
CAMERA ADAPTOR
POWER
CABLE COMP

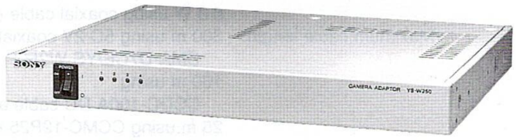

CAMERA
DC OUT VIDEO IN
75Ω
HD
VD
IN
OUT
VIDEO OUT
AC IN

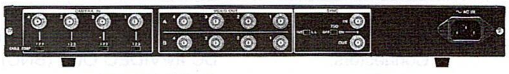
YS-W250P

AC adaptor for DXC-107AP

- Power supply and video/sync signal transmission by connecting to the camera with a single coaxial cable
- Up to four cameras can be connected
- Internal or external synchronization with VS or AC line lock
- Extends the cable lengh up to 300 m with 5C-2V coaxial cable

Connectors: CAMERA IN 1 to 4 (BNC × 4)
VIDEO OUT A 1 to 4 (BNC × 4)
VIDEO OUT B 1 to 4 (BNC × 4)
SYNC IN/OUT (BNC, loop-through, 75 Ω ON/OFF switch)
Power requirements:
AC 220 to 240 V, 50 Hz
Power consumption:
48 W
Dimensions: 424 (W) × 52(H) × 330(D) mm
(16 3/4 × 2 1/8 × 13 inches)
Mass: 3.6 kg (7 lb 15 oz)


SONY
POWER
CAMERA ADAPTOR YS-W250


CAMERA IN
VIDEO OUT
SYNC
AC IN

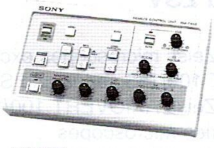
RM-C950

Remote control unit

- Full remote control of the DXC-9100P/950P/H10 camera functions and lens zoom/focus/iris functions via RS-232C
- Facilitated operation with knob control of gain, detail, master pedestal, red and blue gain functions
- A printer button is provided
- Power is supplied through the DXC-9100P/950P connected to the CMA-D2CE Camera Adaptor or CCU-M5P Remote Control Unit

Power requirements:
DC 12 V (supplied from DXC-9100P/950P connected to CMA-D2CE or CCU-M5P. Or DXC-H10 connected to CMA-H10)
Operating temperature:
–5 to 45°C (23 to 113°F)
Connectors: CAMERA (8-pin)

Control: IRIS (AUTO/MANUAL)
ZOOM
FOCUS
COLOUR BAR
MENU DISPLAY
GAIN (STEP/AGC/ISO)
SHUTTER SPEED (OFF/STEP/LONG
EXP/C.SCAN/CCD IRIS)
AE WINDOW (LARGE/MEDIUM/SPOT)
FIELD/FRAME (CCD INTEGRATION MODE)
COLOUR TEMPERATURE (3200 K/5600 K)
WHITE BALANCE (AUTO/MANUAL/ATW)
LINEAR MATRIX
SHADING COMPENSATION
MASTER PEDESTAL
DETAIL
H. PHASE
SC PHASE
FINE
GAMMA
KNEE
G. SYNC
MEMORY BANK
MEMORY PROTECT
DATA SEND
D-SUB OUTPUT (VBS/Y/C, RGB/COMPONENT)
BAUD RATE
FLASH
PRINTER TRIGGER

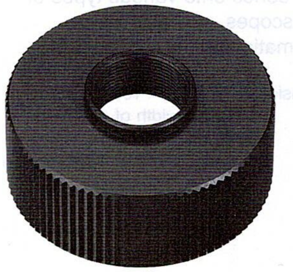


Mass: Approx. 400 g (14 oz)
Dimensions: 212(W) × 41(H) × 132(D) mm ($8\frac{3}{8} \times 2\frac{5}{8} \times 5\frac{1}{4}$ inches)
Supplied accessories:
Connection cable (3 m)
Operation manual

LO-UCMT

C-mount adaptor for DXC-LS1P

- For mounting C-mount type lens on the DXC-LS1P



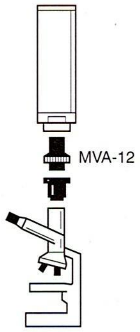
MVA-12

Video camera microscope adaptor

- For 2/3-inch video camera with C-mount (DXC-107AP*)

Video camera mount:
C-mount
Applicable microscope:
Biological or metallurgical microscope with straight tube
Dimensions: 48(dia.) × 98(L) mm ($1\frac{15}{16} \times 3\frac{7}{8}$ inches)
Mass: 120 g (4.2 oz)

* Although the MVA-12 can also be used with the DXC-107AP(1/2-inch camera), the effective viewing area should be adjusted.



MVAC-33 series

Coupler

- MVAC-33-N: For NIKON microscopes except the SMZ-10 series
- MVAC-33-SM: For NIKON SMZ-10 series microscopes
- MVAC-33-O: For OLYMPUS microscopes
- Used with the MVA-12/20/33/40/41A

Dimensions: MVAC-33-N;
48(dia.) × 44(L) mm
($1\frac{15}{16} \times 1\frac{3}{4}$ inches)
MVAC-33-SM;
47(dia) × 87.5(L) mm
($1\frac{7}{8} \times 3\frac{1}{2}$ inches)
MVAC-33-O;
55(dia.) × 48(L) mm
($2\frac{1}{4} \times 1\frac{15}{16}$ inches)
Mass: MVAC-33-N; 50 g (1.8 oz)
MVAC-33-SM; 125 g (5 oz)
MVAC-33-O; 100 g (3.6 oz)

MVAC-33-N

MVAC-33-SM

MVAC-33-O

ZBB and ZSV

Coupler

- ZBB: For Zeiss microscopes except the AXIOVERT 100/135 series and SV series
- ZSV: For Zeiss AXIOVERT 100/135 series and SV series microscopes
- Used with the MVA-12/20/33/40/41A

Dimensions: ZBB;
62(dia.) × 110(L) mm
($2^{1}/_{2} \times 4^{3}/_{8}$ inches)
ZSV;
52(dia) × 131(L) mm
($2^{1}/_{8} \times 4^{1}/_{4}$ inches)

MVA-40

Microscope adaptor

- For mounting the DXC-327BP/9100P/950P series onto various types of microscopes
- Automatic/manual light control

Dimensions: 74 (dia.) × 108(L) mm
(max. width of 116 mm)
($3 \times 4^{3}/_{8}$ inches)
(max. width of 4 5/8 inches)
Mass: 600 g (1 lb 5 oz)

AUTO
MANU
GAIN

MVA-41A

Microscope adaptor

- For mounting the DXC-327BP/9100P/950P series onto various types of microscopes

Dimensions: 50(dia.) × 77(L) mm
($2 \times 3^{1}/_{8}$ inches)
Mass: 180 g (6 oz)

MVA-690

Operation microscope adaptor (one way)

- For 2/3-inch video camera with bayonet mount (DXC-H10)
- For Carl Zeiss OPMI series/TOPCON 600 series

Video camera mount:
Bayonet
Applicable microscope:
Operation microscope
Dimensions: 147.5 (W) × 98.5 (H) × 50 (D) mm
(5 ⅞ × 4 × 2 inches)
Mass: 590 g (1 lb 5 oz)

SONY
f:5.6/70mm

MVA-265

Operation microscope adaptor (one way)

- For 1/2-inch video camera with bayonet mount (DXC-9100P/950P)
- For Carl Zeiss OPMI series/TOPCON 600 series

Video camera mount: Bayonet
Applicable microscope: Operation microscope
Dimensions: 148(W) × 92(H) × 50(D) mm (5⁷/₈ × 3⁵/₈ × 2 inches)
Mass: 550 g (1 lb 3 oz)

SONY
MICROSCOPE ADAPTOR MVA-265

RM-S2/S5 series (by Fujinon)

Remote controller

- RM-S2 series for servo zooming and focusing
- RM-S5 series for servo zooming and manual focusing

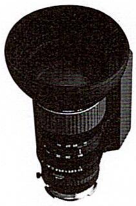
RM-S2 series: RM-S2C/S2D
RM-S5 series: RM-S5D

RM-S2

LENSES FOR DXC-107AP (1/2-inch C mount type)

	PH10 × 8REA-IA-II
Mount	C
Focal length	8 to 80 mm
Zoom ratio	10×
Zoom control	Remote
Iris control	Auto
Maximum aperture ratio	1.2
Filter size	62 mmø
Supplied accessory	Remote control box CC-8T-II, MD cable (10 m)
Mass	Lens: 700 g (1 lb 9 oz) CC-8T-II: 1.3 kg (2 lb 14 oz)
Dimensions	Lens: 70(W) × 80(H) × 126.6(D) mm ($2\,^{7}/_{8} \times 3\,^{1}/_{4} \times 5$ inches)
Power requirements	AC100/117/220/240 V, 50/60 Hz (CC-8T-II)
Notes	By Canon

LENSES FOR DXC-950P (1/2-inch Bayonet mount type)

					
	VCL-707BXM	S16 × 6.7BMD-D38	VCL-714BXEA	VCL-717BXEA	YH17X7 KTS B (by Canon)
Mount	Bayonet	Bayonet	Bayonet	Bayonet	Bayonet
Focal length	7.5 to 52.5 mm	6.7 to 107 mm	7.5 to 105 mm	7 to 119 mm	7 to 119 mm
Zoom ratio	7×	16×	14×	17×	17×
Zoom control	Manual	Remote	Remote	Remote	Remote
Focus control	Manual	Remote	Remote	Remote	Remote
Iris control	Manual	Remote	Remote	Remote	Remote
Maximum aperture ratio	1.6	1.4	1.4	1.4	1.4
Minimum object distance	0.3 m	0.9 m	1.1 m	0.95 m	0.95 m
Macro	Not applicable	Applicable	Applicable	Not Applicable	Applicable
Filter size	M58 × 0.75 mm	M77 × 0.75 mm	M72 × 0.75 mm	M86 × 1.0 mm	M82 × 0.75 mm
Mass	560 g (1 lb 4 oz)	1.25 kg (2.7 lb)	1.13 kg (2 lb 6 oz)	1.7kg (3 lb 12 oz)	1.7kg (3 lb 12 oz)
Dimensions	60(dia.) × 125(L) mm ($2\,^{3}/_{8} \times 5$ inches)	120(dia.) × 165 (L) mm ($4\,^{3}/_{4} \times 6\,^{1}/_{2}$ inches)	110(dia.) × 185.9(L) mm ($4\,^{3}/_{8} \times 7\,^{3}/_{8}$ inches)	107(W) × 117(H) × 181.5(D) mm ($4\,^{1}/_{4} \times 4\,^{5}/_{8} \times 7\,^{1}/_{4}$ inches)	128(W) × 97.5(H) × 168.9(D) mm ($5\,^{1}/_{8} \times 3\,^{7}/_{8} \times 6\,^{3}/_{4}$ inches
Notes	—	Zoom/Focus/Iris functions can be remotely controlled from the RM-C950			

LENSES FOR DXC-H10 (2/3-inch Bayonet mount type)

	HJ15×8B	HJ18×7.8B
Mount	2/3 inch bayonet	2/3 inch bayonet
Focal length	8 to 104 mm	7.8 to 132 mm
Zoom ratio	15×	18×
Zoom control	Manual & motorized	Manual & motorized
Iris control	Auto & manual	Auto & manual
Maximum aperture ratio	1.9	2.2
Maximum object distance	1.0 m	1.2 m
Zoom extnder	2.0×	2.0×
Macro	○	○
Filter size	105 mmø	105 mmø
Mass	1.6 kg	2.25 kg
Dimensions	212.9 mm (L)	242.8 mm (L)
Notes	By Canon	By Canon

4. Sensor camera accessories

Video camera accessory combinations

		DXC-D30P/D30WSP	DXC-637P	DXC-327BP	DXC-950P	DXC-107AP	DXC-9100P	DXC-LS1P	DXC-H10
Camera control unit	CCU-TX7P	○	○						
	CCU-M7P	○*1	○*1	○*2					
	CCU-M5P	○*5	○	○	○		○		
AC adaptor	CMA-H10								○
	CMA-8ACE	○	○	○					
	CMA-D2CE				○	○	○	○	
	CMA-D7CE					○			
	YS-W250P					○			
Viewfinder	DXF-701CE	○							
	DXF-601CE		○	○					
	DXF-41		○	○					
	DXF-51		○	○					
Carrying case	LC-420			○					
	LC-421	○	○						
	LC-304SFT	○	○	○					
Tripod adaptor	VCT-12								
	VCT-14	○	○	○					
	VCT-U14	○	○	○					
Inter-com headset	DR-100	○	○	○					
Microscope/endoscope adaptor	MVA-12					△*3			
	MVAC-33	○	○	○	○	○	○		
	MVA-40			○	○		○		
	MVA-41A			○	○		○		
	MVA-265				○		○		
	MVA-690								○
	ZBB/ZSV	○	○	○	○	○	○		
Others	DC-520	○	○	○					
	CAC-4	○	○	○					
	CAC-12	○	○	○					
	RM-M7G	○	○*1	○*2					
	CA-327P	○*4	○*4	○*4					
	CA-537P	○	○	○					
	CA-511	○	○	○					
	CA-512P	○	○						
	CA-513	○	○	○					
	CA-325AP	○	○	○					
	CA-325B	○	○	○					
	LO-32BMT			○	○		○		
	LO-UCMT							○	
	RM-C950			○	○		○		

○ Recommendable △ Usable

[1] Gamma control cannot be used.

[2] Knee and gamma controls cannot be used.

[3] Although the MVA-12 is the Microscope Adaptor for 2/3-inch video cameras, it can also be used with the DXC-107AP. In this case, the effective viewing area is changed.

[4] Available for CA-327P models with serial No. 40101 and above.

[5] Matrix (STD, H.SAT, FL) cannot be controlled.

SECTION 3 NON-LINEAR/EDITOR/DME/SWITCHER

1. Non-linear Editing System

ES-7 110
ES-3 112

2. Editing Control Units

RM-450A 113
PVE-500 114
FXE-120P 115
IF-FXE2 116

3. DME/Switchers

3-1.Digital multi effects/switcher system

DFS-500P 117
DFS-300P 118

3-2.Composite/Component Video Switchers

BVS-3200P/3200CP 119
BVS-3100P 119

3-3.Special effects systems

SEG-2550AP 120

4. Chromakeyer

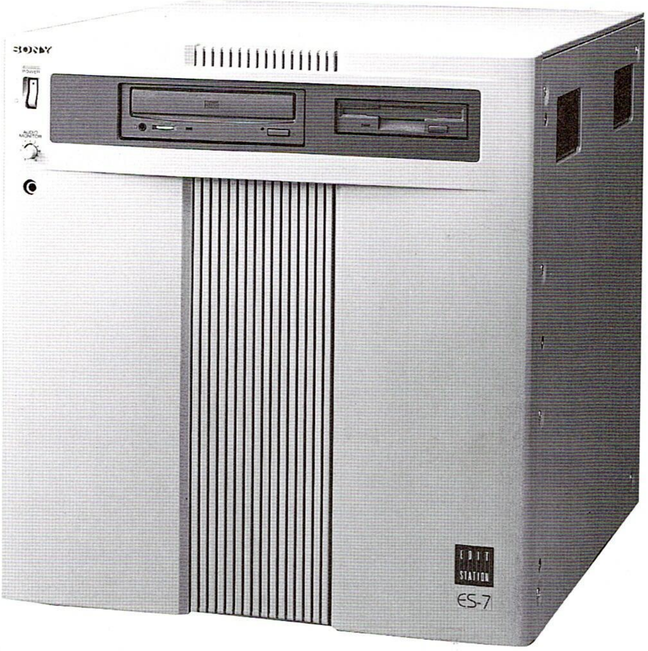
DCK-500P 121

1. Non-linear Editing System

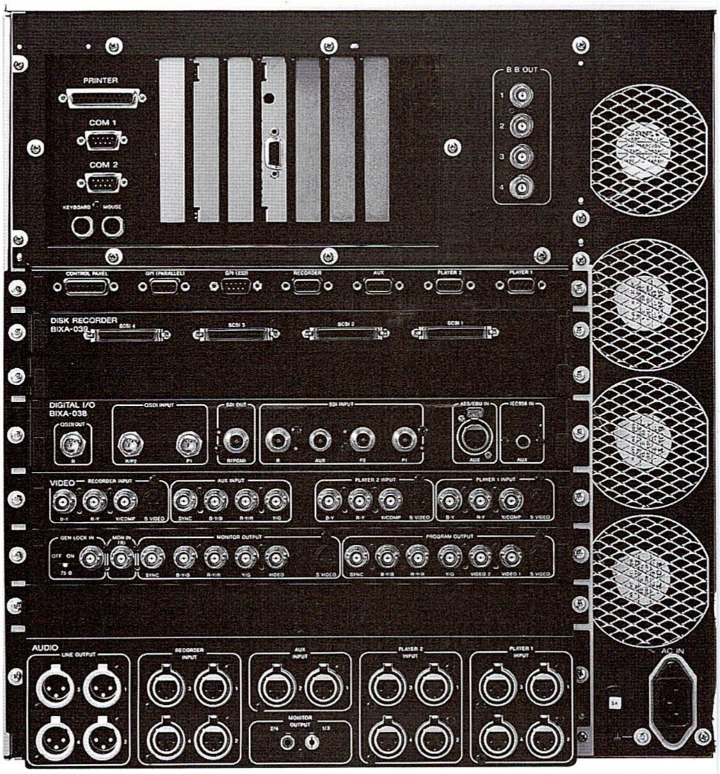
ES-7

EditStation™

•The digital system for power production •Direct Digital Link with DSR-60P/80P/85P VTR •x4 Transferring capability when combined with the DSR-85P VTR •High picture quality •Hybrid operation capability including the unique Disk B-roll™ operation •SDI and SDTI (QSDI) digital interface capability with optional boards •2-channel playback and 1-channel recording for real-time layering •Sophisticated Graphical User Interface (GUI) provided for efficient operation •ClipLink™ operation to save valuable disk space and time •Superb performance DME Switcher •Multiple input/output formats provided •Direct touch graphics function to enable graphics creation to be performed directly on the live video •Variable compression rate •Optional ESDraw kit available in addition to the standard TextComposer •Control panel available for intuitive operation •Fixed Speed DMC •16:9 editing mode •User Programmble Effect


SONY
EDIT STATION
ES-7

Supplied accessories:	Power cord Mouse Keyboard Extansion cables for keyboard and mouse (4m) Parallel GPI D-sub 15-pin connector Software and online manual (CD-ROM disc) Windows NT package (CD-ROM disc and manual) Operating instructions
Optional accessories:	Control Panel ESBK-7011 Basic DME Switcher Board ESBK-7021 3D Effect Board for Basic DME Switcher Board ESBK-7022 Advanced DME Switcher Board ESBK-7023 3D Effect Board for Advanced DME Switcher Board ESBK-7024 SDTI (QSDI) Interface Board ESBK-7031 SDI Interface Board ESBK-7032 Disk Recorder Board ESBK-7041 Disk Unit ESBK-7045 SCSI Option ESBK-7051 Ethernet Option ESBK-7052 SCSI Cable ESBK-7053 Additional Memory Set ESBK-7054 ESDraw ESBK-7071 EditStation Operation Manual ESBK-7091E/F/G ESDraw Operation Manual ESBK-7092E/F/G Rack Mount Kit for ES-7 RMM-ES7 Rack Mount Kit for ESBK-7045 RMM-ES701


PRINTER
COM 1
COM 2
KEYBOARD
MOUSE
B.B OUT
CONTROL PANEL
GPI (PARALLEL)
GPI (232)
RECORDER
AUX
PLAYER 2
PLAYER 1
DISK RECORDER
SCSI 4
SCSI 3
SCSI 2
SCSI 1
DIGITAL I/O
BIXA-03B
QSDI INPUT
SDI OUT
SDI INPUT
AES/EBU IN
IEC958 IN
VIDEO
RECORDER INPUT
AUX INPUT
PLAYER 2 INPUT
PLAYER 1 INPUT
GEN LOCK IN
MONITOR OUTPUT
PROGRAM OUTPUT
AUDIO
LINE OUTPUT
AC IN

Rear Panel of ES-7

Specification

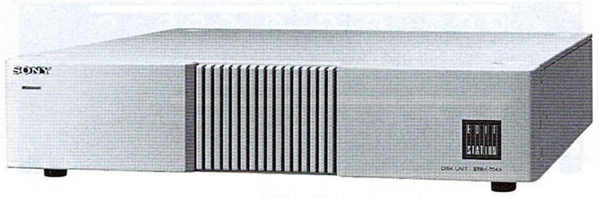
General

Power requirement:	AC 220/240V, 50/60Hz
Operating voltage:	AC 180 to 264V, 48 to 63Hz
Power consumption:	Main Unit (ES-7): Approx. 450W Disk Unit (ESBK-7045): Approx. 100W
Operating temperature:	5 to 35°C (41 to 95°F)
Dimensions:	Main Unit (ES-7): 424 (W) × 431.6 (H) × 478 (D) mm (16¾ × 17 × 18⅞ inches) Disk Unit (ESBK-7045): 424 (W) × 88 (H) × 478 (D) mm (16¾ × 3½ × 18⅞ inches) Control Panel (ESBK-7011): 372 (W) × 76 (H) × 228 (D) mm (14¾ × 3 × 9 inches)
Mass:	Main Unit (ES-7): 35 kg (77 lb 3 oz) Disk Unit (ESBK-7045): 14 kg (30 lb 14 oz) Control panel (ESBK-7011): 1.7 kg (3 lb 12 oz)

PC

CPU:	Pentium 200MHz MMX
OS:	Windows NT4.0
Memory:	64MB
Hard disk drive:	2 GB
Floppy disk drive:	1 × 720KB/1.44MB
CD-ROM drive:	1 × ATAPI, Quadruple (x24) speed
Card slot:	32-bit PCI bus (33MHz) and 16-bit ISA bus
VGA:	1024 × 768, 65K colors
Mouse:	1 × Mini Din 6-pin

ESBK-7011



ESBK-7045

Keyboard:	1 × Mini Din 6-pin

Video

Analogue video inputs:	3 sources (P1/P2/R) selectable from Y/R-Y/B-Y, Composite or Y/C BNC: Y/R-Y/B-Y, Composite MiniDin 4-pin: Y/C 1 sources (AUX) selectable from Composite, Y/R-Y/B-Y or G/B/R/Sync., BNC 1 × Gen. Lock IN, BNC
Digital video inputs:	2 (P1, P2/R) × SDTI (QSDI), BNC 3 (P1, P2, R) × SDI, BNC
Analogue video outputs:	PGM & MONITOR outputs, Y/R-Y/B-Y, G/B/R/Sync., Composite and Y/C BNC: Y/R-Y/B-Y, G/B/R/Sync., Composite MiniDin 4-pin: Y/C 4 × Black Burst output, BNC
Digital video outputs:	1 × SDI PGM output (R), BNC 1 × SDTI (QSDI) PGM output (R), BNC

Audio

Audio:	Up to 22-ch input and 4-ch output
Analogue audio inputs:	4-ch × 3 sources (P1/P2/R), XLR 3-pin 2-ch × 1 source (AUX), XLR 3-pin
Digital audio inputs:	2-ch × 1 source (AUX), selectable from AES/EBU or IEC-958
Analogue audio outputs:	LINE OUT: 4-ch, XLR 3-pin MONITOR OUT: 2-ch (1/3 & 2/4), Pin-jack
Digital audio outputs:	Multiplied as SDI/SDTI (QSDI)

Compression

Compression scheme:	DV Compression

DME Switcher

Basic DME Switcher: (ESBK-7021)	Y:R-Y:B-Y=4:1:1, 13.5MHz, 8-bit Chromakey & luminance key: 1 bit (linear key) Downstream keyer: 8 bit
Advanced DME Switcher: (ESBK-7023)	Y:R-Y:B-Y=4:2:2, 13.5MHz, 8-bit Chromakey & luminance key: 8 bit (linear key) Downstream keyer: 8 bit

Control

P1, P2, AUX & R:	RS-422A, D-Sub 9-pin
GPI (Serial):	RS-232C, D-Sub 9-pin
GPI (Parallel):	Active low TTL, D-Sub 9-pin
Control Panel:	D-Sub 15-pin

Graphics/title

Pixel format:	4:2:2:4 (Y/R-Y/B-Y/Alpha)
Font:	True type
Import format:	BMP, TGA, TIFF, PICT, JPEG

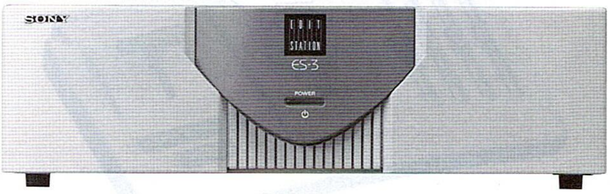
Others

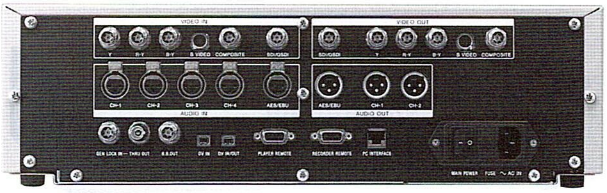
EDL Import/export format:	Sony BVE-9100 Format

ES-3

EditStation

•Flexible non-linear editing system connectable PC and HDD •The total digital system •Direct Digital Link with DVCAM VTR •High picture quality •SDI and SDTI(QSDI) digital interface capability with option •Sophisticated Graphical User Interface (GUI) provided for efficient operation •ClipLink operation to save valuable disk space and time •Multiple input/output formats provided •Video special effects (including third-party effect software) •Standard Titler •Control panel available for intuitive operation •Text EDL output •Open software architecture •Support of QuickTime/AVI file format •Multiple Languages for GUI





Supplied items:	Main unit PCI interface board ES-3 application software Title software Installation instructions AC power code Modular cable Cable splitter

Specifications

General

Main Unit

Power Requirements:	AC 220-240 V 50/60 Hz
Power Consumption:	100 W
Operating Temperature:	5~35 °C (41~95 °F)
Dimensions:	442 (W) × 134 (H) × 365 (H) mm (without projection) (17 ½ × 5 ⅜ × 14 ⅜ inches)
Mass:	11 kg (24 lb 4 oz)
Video Signal Standard:	PAL
Video Processing:	Y:R-Y:B-Y=4:2:2, 13.5 MHz, 8-bit
Audio Processing:	48 kHz, 16-bit
Compression Scheme:	DV compression (fixed 25 Mbit/s)

PCI Interface Board

Standard:	PC/AT PCI Rev 2.1
Dimensions:	PCI Full size

Signal Connectors

Analog Inputs	
COMPOSITE:	BNC
Y, R-Y, B-Y:	BNC
S VIDEO:	Mini-DIN 4-pin
GEN LOCK IN, THRU OUT:	BNC
AUDIO CH-1, 2, 3, 4:	XLR 3-pin
Analog Outputs	
COMPOSITE:	BNC
Y, R-Y, B-Y:	BNC
S VIDEO:	Mini-DIN 4-pin
B.B. OUT:	BNC
MONITOR:	Mini-DIN 4-pin (at PCI interface board)
AUDIO CH-1, 2:	XLR 3-pin (2)
AUDIO MONITOR:	Stereo Mini Jack (at Cable splitter)
Digital Inputs	
SDI/SDTI(QSDI):	BNC * ESBK-3031 is required.
DV IN:	DV-type 4-pin Jack
AES/EBU:	XLR 3-pin
Digital Outputs	
SDI/ SDTI(QSDI):	BNC * ESBK-3031 is required.
AES/EBU:	XLR 3-pin
Digital Input/Output	
DV IN/OUT:	DV-type 4-pin Jack

Control Connectors

PLAYER REMOTE:	D-sub 9-pin, RS-422A
RECORDER REMOTE:	D-sub 9-pin, RS-422A
PC INTERFACE:	Modular Jack 8-pin
MAIN UNIT I/F:	Modular Jack 8-pin (at PCI interface board)
CONTROL PANEL:	D-sub 15-pin (at PCI interface board)

Titler

Pixel Format:	Y/R-Y/B-Y/Alpha=4:2:2:4
Display Area:	720x576 for PAL
Font:	True type
Import Format:	BMP, TGA, TIFF

Recommended Personal Computer

CPU:	Intel Pentium II 233/266/300/333 MHz
Chip set:	Intel 440LX
OS:	Microsoft Windows NT 4.0 Workstation
Memory:	96 MB minimum
System HDD:	EIDE Ultra ATA Type
VGA:	Matrox Millennium II PCI 4 MB
Slots:	1x PCI full-size slot for supplied PCI interface board 2x PCI half-size slot for VGA and SCSI controller
CD-ROM Drive:	
3.5-inch Floppy Disk Drive:	
Mouse/Keyboard:	Microsoft IntelliMouse supported

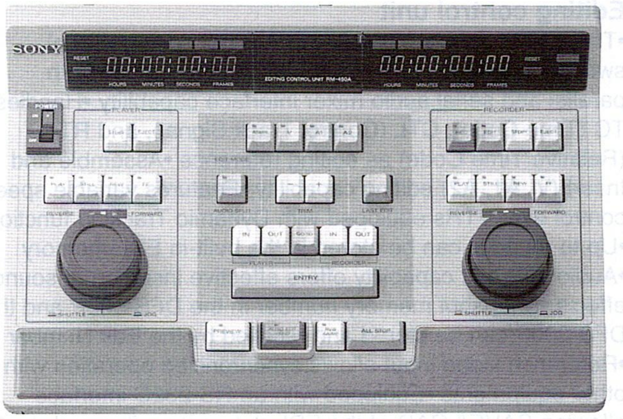
Recommended A/V Storage Subsystem

SCSI Controller:	Adaptec AHA-3940UW/UWD
HDD:	2x Ultra wide SCSI Hard Disk Drive (recommended model only)

RM-450A

Editing control unit

•Can be connected to 9-pin equipped editing VTR on both the player side and recorder side •The RM-450A not only allows CTL based editing but also makes Time Code editing possible •Provides the Relative Time Code (RTC) editing mode, in which time code is used as an edit reference and time code progress is like CTL on the LED counter •The AUDIO COUNTER RESET function automatically sets the editing point first designated to "0:00:00:00" •Can use the Assemble and Insert (V/A1/A2) edit modes, and provides editing functions such as editing IN-POINT/OUT-POINT ENTRY, PREVIEW, TRIM, AUTO EDIT/END, REVIEW/ JUMP, GO TO, AUDIO SPLIT, and LAST EDIT •The function keys are laid out to enable easy operation •Provides the JOG/SHUTTLE dials on both the player side and recorder side •Accepts REF. VIDEO IN (reference video input) for synchronized operation •Can memorize the pinch on delay and adjust the editing in-point automatically •Mode setting is very easy and convenient when using the preset switches on the front panel •A cue pulse out is provided for external equipment •Indicates the "Error" and error number on the LED counter along with a warning sound •A built-in self-diagnostic function improves serviceability and make maintenance easy


SONY
RESET
00:00:00:00
HOURS MINUTES SECONDS FRAMES
EDITING CONTROL UNIT RM-450A
00:00:00:00
HOURS MINUTES SECONDS FRAMES
PLAYER
RECORDER
REVERSE
FORWARD
IN
OUT
ENTRY
SHUTTLE
JOG
PREVIEW
ALL STOP

REF.VIDEO IN RECORDER
PLAYER
CUE OUT
AC IN

Supplied accessories:	AC power cord Error message chart Operation manual
Optional accessories:	9-pin remote control cable RCC-5G/10G/30G Rack mount kit RMM-450 (for 19-inch EIA and SONY SU-512 rack)

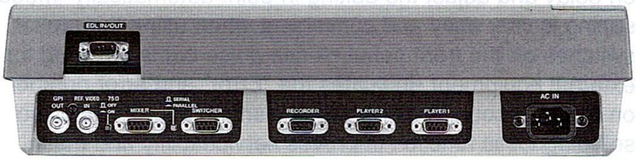
Specifications

Power requirements:	AC 198 to 264V, 48 to 63Hz
Power consumption:	11W
Mass:	Approx. 3.1 kg (61 lb 13 oz)
Dimensions:	390 (W) × 93 (H) × 265 (D) mm (15 × 3¾ × 10½ inches)
Operating temperature:	0 to 40°C (32 to 104°F)
Edit reference:	CTL, SMPTE/EBU LTC, VITC
Reference video input:	0.5Vp-p to 2.0Vp-p negative, 75Ω, unbalanced
External sync input:	0.5Vp-p to 5.0Vp-p negative, 75Ω, unbalanced
Cue pulse signal:	Active low: low level 0 to 0.5V/high 3.5 to 5.0V

PVE-500

Editing control unit

•Three VTR control capability in A/B roll editing •Serial switcher interface via 9-pin RS-422A connection •Both parallel and serial audio mixer interface capability •Handles TC (Time Code), CTL (Control Track Signal), and RTC (Relative Time Code) as editing reference •Assemble and Insert (V, A1, A2) editing capability •Features variable speed control over VTRs equipped with Dynamic Tracking function •Up to 99 edits can be stored in the built-in EDL memory •Audio split edit capability offers effective insertion of sound effects •Snapshot memory number in the DFS-500P and the DFS-300P can be stored and recalled by the Edit Number •Reference video input allows synchronized operation with other equipments •Equipped with an RS-232C interface allowing SAVE/LOAD of the EDL data onto a floppy disk •A GPI output enables basic control of peripheral equipments such as audio tape recorders and title generators which cannot be directly interfaced with the PVE-500 •The two search dial operation enables quick and easy access to the edit points



Supplied accessories:	AC power cord Operation manual
Optional accessories:	Audio mixer control cable RCC-5AA 9-pin remote control cable RCC-5/10/30G Rack mount metal RMM-500

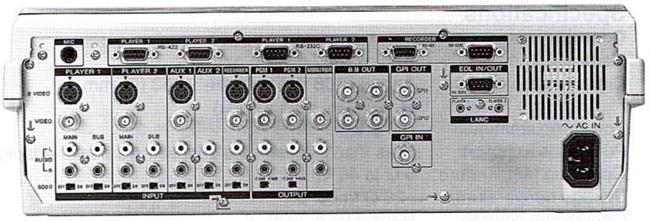
Specification

General	
Power requirements:	AC 100/120/220 to 240 V ±10 %, 47.5 to 63 Hz
Power consumption:	11W maximum
Operating temperature:	5 to 40°C (41 to 104°F)
Storage temperature:	–20 to 60°C (–4 to 140°F)
Dimensions:	390 (W) × 94 (H) × 265 (D) mm (15⅜ × 3¾ × 10½ inches)
Mass:	3.2 kg (7 lb 8 oz)
Systems	
Editing reference:	CTL, RTC, SMPTE/EBU Time Code
Edit accuracy:	±0 frame with time code ±1 frame with CTL
Memory capacity:	99 events
Controls	
VTR interface:	RS-422A 9-pin remote connector
Switcher interface:	RS-422A 9-pin remote connector
Mixer interface:	9-pin serial/parallel switchable
Controllalble VTRs:	1 recorder and up to 2 players

FXE-120P

•Integration of an editing controller, video switcher, audio mixer and digital effects generator •Three VTR control (RS-422A/RS-232C) •LANC (Local Application Control bus system) interface for controlling home-use LANC VTRs and camcorders as player VTRs •Time code based editing •Equipped with two buses •GPI input/output •8-bit quantizing, 4:1:1 digital processing •Built-in Frame Synchronizers allow editing without a Time Base Corrector •140 wipe patterns •Digital effects (Mix Effect/Fade Effect/ Input Effects) •Built-in chromakeyer and luminance keyer •Colour correction capability •25 different colour background •Editing memory for 99 events •Saving/ loading of EDL Data is possible

Supplied Accessories	AC power cord (1) Instruction manual (1) Userís guide (1) LANC cord (2)
Optional Accessories	RCC-5/10/30G RS-422A remote cable SMF-3036C (RS-232C remote cable, 9-pin to 25-pin)



Specifications

General

Signal system:	PAL
Power requirements:	AC 220 to 240 V ± 10%, 50/60Hz ± 5%
Power consumption:	Maximum 65 W
Operating temperature:	5 to 40°C (41 to 104°F)
Storage temperature:	-20 to 60°C (-4 to 140°F)
Dimensions:	424 (W) × 138.5 (H) × 437.5 (D) mm (16 ¾ × 5 ½ × 17 ¼ inches)
Mass:	Approx. 7.3 kg (16 lb 1 oz)

Systems

Time counter:	Internal time counter (3)
Time count display range:	Time code: 00:00:00:00 to 3:59:59:29 CTL: ± 9:59:59:29 Full edit mode
Editing mode:	Assemble edit: Video, Audio 1/2 Insert Edit: Video Audio 1/2 First edit, Time code insert Split edit, Dynamic Motion Control (DMC)
Edit type:	MIX, WIPE, SYNC-ROLL, CUT, MANUAL 1st Edit, Audio Split Edit, DMC Control
Edit reference:	CTL, LTC, SMPTE/EBU time code, 8mm time code, RC time code, DV time code
Edit Accuracy:	RS-422A: ±0 frame with TC, ±1 frame with CTL RS-232C: ±1 frame with TC LANC: ±5 frame with RC time code
Transition time range:	0 to 999 (unit: frames)
Pinch-on Delay:	Simultaneous measurement of pinch-on delay for up to three VCRs connected to RS-422A/RS-232C/ LANC connectors
EDL memory capacity:	99 edits
Split edit reference:	Audio or Video input

Control

VTR Interface:	RS-422A: 9-pin RS-232C: D-sub 9-pin LANC: stereo mini-mini jack
Controllable VTR:	1 recorder, up to 2 players
GPI interface:	GPI IN (BNC) GPI OUT (BNC) (2)
EDL Interface:	EDL IN/OUT (D-sub 9-pin)

Video

Video inputs

Composite:	BNC (4), unbalanced (PLAYER 1, PLAYER 2, AUX1, RECORDER) Video: 1.0 Vp-p, 75 Ω Sync: 0.286 Vp-p Burst: 0.286 Vp-p
S-Video	4-pin (4), unbalanced (PLAYER 1, PLAYER 2, AUX1, RECORDER) Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.286 Vp-p, 75 Ω Bust sync: 0.286 Vp-p

Video Outputs

Composite:	BNC (3), unbalanced (PGM 1, 2, MONITOR) Video: 1.0 Vp-p, 75 ohms Sync: 0.286 Vp-p Burst: 0.286 Vp-p
S-Video	4-pin (2), unbalanced Sync: 0.286 Vp-p Burst: 0.286 Vp-p
Black bust out:	BNC (4), unbalanced Sync: 0.286 Vp-p, Burst: 0.286 Vp-p

Audio

Audio Inputs (stereo):	AUDIO L/R INPUT (PIN jack), (2 channels (5)) PLAYER 1 MAIN (2), SUB (2) PLAYER 2 MAIN (2), SUB (2) RECORDER (2) AUX 1 (2) AUX 2 (2) Input impedance: selectable with 600 Ω terminal switch Input level: -7.5 dBs (input impedance 47 kΩ or above, 600 kΩ switch OFF) +4dBs (input impedance 600Ω, 600 Ω switch ON)
Mic Input (monaural):	PIN (1), unbalanced Input level: -60 dBs, Input impedance: more than 4.3 kΩ or above
Audio Outputs (stereo)	AUDIO L/R OUTPUT (PIN jack) (6) PGM 1(2), PGM 2(2), MONITOR (2) Output level: -7.5 dB/+4.0 dB selectable Impedance: 47kΩ (-7.5 dBs/+4.0dBs)

Signal Processing

Sampling rate:	Y: 910 fH (fH = 15,734kHz) R-Y/ B-Y: 1/4 x 910 fH
Quantization:	Y/R-Y/B-Y: 8-bit
Frequency response:	0 to 5 MHz +1dB/ -1dB
Signal to noise ratio:	More than 53 dB
Y/C delay:	Less than 50 ns (Composite)

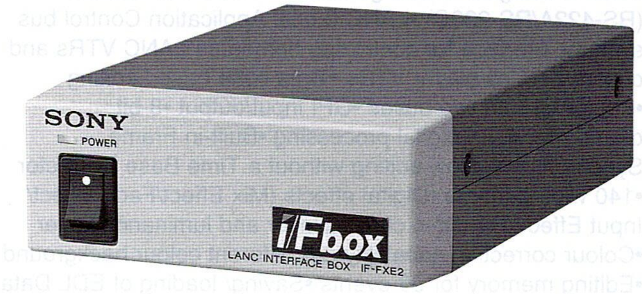
Recommended LANC VTRs

Camcorders:	CCD-VX1, CCD-TR3300E, CCD-TR3200E, CCD-TR3100E, CCD-TRV300E, DCR-VX1000E, DCR-PC7E, DCR-PC10E, DCR-SC100E, DCR-TRV7E, DCR-TRV9E, DCR-TRV900E DSR-200P, DSR-200AP, DSR-PD1P, DSR-PD100P
Player VTR:	EV-S9000E, EV-C2000E, DHR-1000, DSR-20P, DSR-V10P, DSR-30P
Recorder VTR:	DSR-30P

IF-FXE2

LANC Interface Box

•Converts the RS-422A protocol to LANC protocol •Supports connection between recorder LANC VTR's and FXE-100UPG*1/FXE-120P •Supports connection between player LANC VTR's and RM-450A/PVE-500



*1 FXE-100UGP is an FXE-100P which is upgraded with FXE-KIT1.
Please contact your nearest Sony office.

Supplied Accessories:	LANC Connecting Cord (Stereo mini-mini) (1) AC Power Adaptor (1) Instruction Manual (1) List of the recommended products (1)
Optional Accessories:	RS-422A Remote Control Cable: RCC-5G/10G/30G

Specifications

General

Mass:	Approx. 500 g (17.6 oz)
Dimensions:	Approx. 106 (W) × 40 (H) × 163 (D) mm (4 ¼ × 1⅝ × 6½ inches)
Power requirements:	DC 6 V
Power consumption:	Less than 3W (with the supplied AC power adaptor)
Operating temperature:	5 C to 40°C
Storage temperature:	–20 C to 60°C
Operational position:	Horizontal or vertical

Connectors

RS-422A port:	D Sub 9-pin (1)
LANC port:	Stereo mini-mini jack (1)
DC input:	6V (1)

Function Switches

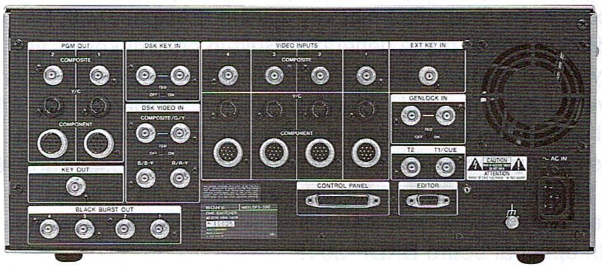
Power:	Seesaw Switch (1)
Learn:	Push Switch (1) and LED (1)
Preset:	Dip Switch (4 bit)

DFS-500P

DME switcher

•Video switcher equipped with powerful digital multi effector •More than 300 factory preset effect patterns including non-linear digital effects •Up to 40 manually created effect patterns can be stored in the User Programme memory system for subsequent recall •Built-in two frame synchronizer accept non time base corrected video signals •4:1:1 digital component processing realizes high picture quality •Accepts component, composite and S-VIDEO signals to be processed simultaneously •Composed of 2 busses and 4 primary inputs •15 original background patterns •Up to 99 panel status storage in the Snap Shot memory system •Equipped with 5 individual colour matte generators •Built-in title keyer •Equipped with fader lever to allow manual picture transition •Perfect interface capabilities with BVE-3000P Series •Simple A/B roll editing system with PVE-500 •Modular design composed of a control panel and a processor unit •Down stream keyer function available with optional board •Lighting, trail, shadow and drop border effects are available with optional board

Rear Panel of Processor



Typical preset patterns
mosaic, mirror, negative, solarization, posterization
picture in picture, ripple wipe, sphere, page turn, page roll, split, slide, melt down, stream, flag

Supplied accessories:	AC power cord 25-pin control cable, 10 m Label 1 set Operation Manual
Optional accessories:	BKDF-501P Trail and lighting board Provides drop border, shadow, trail and lighting effects. BKDF-504P DSK board Provides 8bit down stream keyer. BKDF-503 Rack mount kit Enables the control panel to be mounted onto the editing console.

Specifications

General

Power requirements:	AC 220/240V, 50/60Hz
Operating voltage:	AC 180 to 264V, 48 to 63Hz
Power consumption:	140W
Operating temperature:	0 to 40°C (32 to 104°F)
Dimensions:	Control Panel: 424 (W) × 116 (H) × 344 (D) mm (16¾ × 4⅝ × 13⅝ inches) Processor Unit: 424 (W) × 177 (H) × 450 (D) mm (16¾ × 7 × 17¾ inches)
Mass:	Control Panel: 3 kg (6 lb 10 oz) Processor Unit: 17 kg (35 lb 4 oz)

Input Signals

VIDEO INPUTS 1 through 4	
Composite:	BNC type (1 in each) VIDEO: 1.0Vp-p, 75Ω SYNC: 0.3Vp-p BURST: 0.3Vp-p Y/C: 4-pin (1 in each) Y: 1.0Vp-p, 75Ω C: 0.3Vp-p, 75Ω SYNC: 0.3Vp-p
Component:	12-pin (1 in each) Y: 1.0Vp-p, 75Ω R-Y/B-Y: 0.525Vp-p, 75Ω
DSK VIDEO IN	
Composite/G/Y:	BNC type
Composite:	VIDEO 1.0Vp-p, 75Ω SYNC 0.3Vp-p BURST 0.3Vp-p Y: 1.0Vp-p, 75Ω G: 0.7Vp-p, 75Ω
B/B-Y:	BNC type B-Y: 0.525Vp-p, 75Ω B: 0.7Vp-p, 75Ω
R/R-Y:	BNC type R-Y: 0.525Vp-p, 75Ω R: 0.7Vp-p, 75Ω
EXT KEY IN:	BNC type 1.0Vp-p, 75Ω
DSK KEY IN:	BNC type 1.0Vp-p, 75Ω
GEN LOCK IN:	BNC type Sync: 0.3Vp-p Burst : 0.3Vp-p

Output Signals

PGM OUT 1 and 2	
Composite:	BNC type VIDEO: 1.0Vp-p, 75Ω SYNC: 0.3Vp-p BURST: 0.3Vp-p
Y/C:	4-pin Y: 1.0Vp-p, 75Ω C: 0.3Vp-p, 75Ω SYNC: 0.3Vp-p
Component:	12-pin Y: 1.0Vp-p, 75Ω R-Y/B-Y: 0.525Vp-p, 75Ω
KEY OUT:	BNC type: 1.0Vp-p, 75Ω
BLACK BURST OUT:	BNC type SYNC: 0.3Vp-p, 75Ω BURST: 0.3Vp-p, 75Ω

Signal Processing

Sampling Rate:	Y: 908fH (fH : 15.625 kHz) R-Y/B-Y: 1/4 × 908fH
Quantization:	Y/R-Y/B-Y: 8 bits
Linearity (Composite output):	DG: Less than 3.5% composite input Less than 2% component/S input DP: Less than 2.5°composite input Less than 1° component/S input
Cross talk:	Less than -50dB
Frequency response:	0 to 5 MHz +0.5dB/–1dB
S/N:	More than 51dB (composite) More than 55dB (Y/C, component)
Y/C delay:	Less than 20ns (component) Less than 50ns (composite)

Control Signals

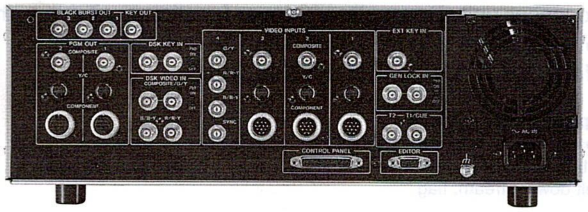
Editor:	9-pin remote
T1/T2, cue:	BNC type
Control Panel:	25-pin remote

DFS-300P

DME switcher

•Video switcher equipped with powerful digital multi effector •More than 300 factory preset effect patterns including 2D digital effects •With the optional board BKDF-301P, 3D linear and non linear factory preset effect patterns can be added •Up to 20 manually created effect patterns can be stored in the User Programme memory system for subsequent recall •With the optional board BKDF-301P, up to 40 effect patterns can be manually created and stored in the User Programme memory system •Built-in two frame synchronizers accept non time base corrected video signals •4:1:1 digital component processing realizes high picture quality •Accepts component, composite and S-video signals •Accepts RGB signals for graphic image data processing •Composed of two busses and four primary inputs • 31 original background patterns •Up to 99 snapshots can be stored in the Snap Shot memory system •Equipped with five individual colour matte generator •Built-in chromakeyer, title keyer and colour correction controller •Equipped with fader lever to allow manual picture transition •Provides simple A/B roll or two machine editing system with PVE-500 •Modular design composed of a control panel and a processor unit •8-bit Down Stream Keyer function available with optional board BKDF-504P •3D and non-linear effects are available with optional board BKDF-301P

Rear Panel of Processor



Typical preset patterns

mosaic, mirror, negative, solarization, posterization, split, slide, melt down, stream, etc

Supplied accessories:	AC power cable 25-pin control cable (10m) Operation manual
Optional accessories:	BKDF-301P 3D effect board Provides 3D effect, non-linear effect BKDF-503 Rack mount kit BKDF-504P DSK board

Specifications

General

Power requirements:	AC220V or 240V, 50/60Hz
Operating Voltage:	AC180 to 264V, 48 to 63Hz
Power consumption:	80W
Operating temperature:	0 to 40˚C (32 to 104˚F)
Dimensions:	Control panel: 424 (W) × 69 (H) × 287 (D) mm (16¾ × 2¾ × 11⅜ inches) Processor: 424 (W) × 132 (H) × 450 (D) mm (16¾ × 5¼ × 17¾ inches)
Mass:	Control panel: 2.3 kg (5 lb 1 oz) Processor: 13.0 kg (28 lb 10 oz)

Inputs/Outputs

Primary video inputs 1 to 3/Programme video outputs:	
Composite	Connector: BNC type (× 1, each) Video: 1.0Vp-p, 75Ω Sync: 0.3Vp-p Burst: 0.3Vp-p
S-video (Y/C)	Connector: DIN-4-pin (× 1, each) Y: 1.0Vp-p, 75Ω C: 0.3Vp-p, 75Ω, burst Sync:0.3Vp-p
Component (Betacam)	Connector: 12-pin (× 1, each) Y: 1.0Vp-p, 75Ω R-Y/B-Y: 0.525Vp-p
Primary video inputs 4:	
Y/G	Connector: BNC type Y: 1.0Vp-p, 75Ω G: 0.7Vp-p, 75Ω
R-Y/R	Connector: BNC type R-Y: 0.525Vp-p, 75Ω R: 0.7Vp-p, 75Ω
B-Y/B	Connector: BNC type B-Y: 0.525Vp-p, 75Ω B: 0.7Vp-p, 75Ω
Sync	Connector: BNC type 0.3 to 4.0Vp-p, 75Ω
DSK Video Inputs:	
Composite/G/Y (PAL)	Connector: BNC type (× 2, loop-through) Video: 1.0Vp-p, 75Ω Sync: 0.3Vp-p Burst: 0.3Vp-p Y: 1.0Vp-p, 75Ω G: 0.7Vp-p, 75Ω
B/B-Y	Connector: BNC type B-Y: 0.525Vp-p B: 0.7Vp-p, 75Ω
R/R-Y	Connector: BNC type R-Y: 0.525Vp-p R: 0.7Vp-p, 75Ω
EXT KEY IN/DSK KEY IN/KEY OUT:	Connector: BNC type (× 1, each) 1.0Vp-p, 75Ω
GEN LOCK IN:	Connector: BNC type (× 2, loop-through) Video: 1.0Vp-p, 75Ω Sync: 0.3Vp-p Burst: 0.3Vp-p
BLACK BURST OUT 1 to 3:	Connector: BNC type (× 3) Sync: 0.3Vp-p (75Ω) Burst: 0.3Vp-p (75Ω)

Signal Processing

Frequency response:	0 to 5MHz (Ref. 1MHz) +0.5dB/–1dB
Linearity:	DG 3.5% (composite input) 2.0% (component/S input) DP 2.5˚ (composite input) 1.0˚ (component/S input)
Crosstalk:	–50dB
S/N:	51dB (composite) 55dB (Y/C, component)
Y/C delay:	Less than 20ns (component) Less than 50ns (composite)
Sampling rate:	Y: 908fH (fH: 15.625kHz) R-Y/B-Y: 1/4 × 908fH
Quantization:	Y/R-Y/B-Y: 8 bits

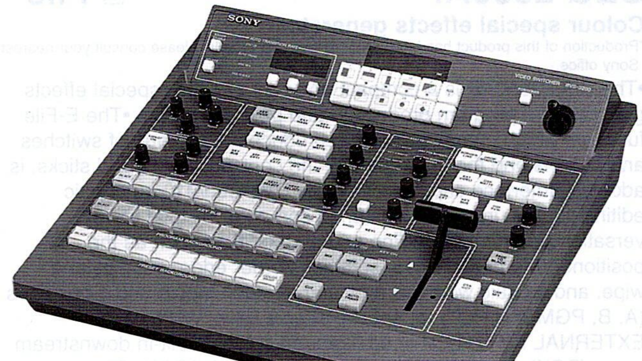
Control Signals

EDITOR:	D-sub 9-pin, 9-pin remote (RS-422A)
T1/CUE IN/T2 IN:	BNC type (× 1, each), TTL level
CONTROL PANEL:	D-sub 25-pin, 25-pin rermote (RS-422A)

BVS-3200P /3200CP

Composite/Component Video Switcher

•Choice of composite or component version:
BVS-3200P Composite Video Switcher
— Accepts composite video signals
BVS-3200CP Component Video Switcher
— Accepts composite or a combination of RGB, Y/R-Y/B-Y component signals
— 12-pin Component Video Connector Inputs/Outputs for Betacam VTRs are provided
•Ten Primary inputs (including colour black and colour background)
•One M/E and two KEY Busses/Processors (assignable) •KEY OVER function •Two common EXT KEY sources and FILL available for both KEYER •One EXT KEY source and FILL available for DSK •Ten basic and eight matrix wipe patterns with modifiers •Fully adjustable internal BOX MASK and EXT MASK inputs •Four COLOUR MATTE GENERATORs for BACKGROUND, EFF/BORDER (KEY 1 and KEY 2), and DSK •CHROMAKEYER (RGB or Y/R-Y/B-Y selectable) •DSK with BORDER, DROP SHADOW, OUTLINE-2H/4H selectable •FADE to BLACK (FTB) function •Auto Transition for M/E, DSK, and FTB •RS-422A interface •Communication of E-File and initial panel information with BVE-2000/9100 •DFS-500P interface •Four Black Burst Outputs •GPI Input port for M/E, DSK, FTB, and SELECT •Four (BVS-3200CP)/two (BVS-3200P) PGM Outputs and one PVW Output



Supplied accessories:	AC power cord Control panel cable (5m) Extension board
Optional accessories:	SWC-2530D Control panel cable (30m) RMM-3000 Rack mount kit

Specifications

Power requirements:	AC 100 to 240V ±10%, 50/60Hz ±10%
Power consumption:	BVS-3200P: 140W BVS-3200CP: 190W
Operating temperature:	0° to 40°C (32° to 104°F)
Storage temperature:	–20° to 60°C (–4° to 140°F)
Dimensions:	
Control panel:	Approx. 424 (W) × 111 (H) × 440 (D) mm (16¾ × 4⅛ × 17⅜ inches)
Processor unit:	BVS-3200P: Approx. 424 (W) × 132 (H) × 397 (D) mm (16¾ × 5¼ × 15¾ inches) BVS-3200CP: Approx. 424 (W) × 176 (H) × 450 (D) mm (16¾ × 7 × 17¾ inches)
Mass:	
Control panel:	Approx. 4.4 kg (9 lb 11 oz)
Processor unit:	BVS-3200P: Approx. 13 kg (28 lb 11 oz) BVS-3200CP: Approx. 18 kg (39 lb 11 oz)

*For further information, please contact the nearest Sony office.

BVS-3100P

Composite Video Switcher

•Ten Primary inputs (including colour black and colour background) •One M/E and one KEY Bus •Two EXT KEY sources and FILL available for KEYER •One EXT KEY source and FILL available for DSK •Ten basic and eight matrix wipe patterns with modifiers •Fully adjustable internal BOX MASK and EXT MASK inputs •Three COLOUR MATTE GENERATOR for BACKGROUND, EFF/BORDER, and DSK •CHROMAKEYER (RGB or Y/R-Y/B-Y selectable) •DSK with BORDER, DROP SHADOW, OUTLINE (2H/4H) selectable FADE to BLACK (FTB) function •Auto Transition for M/E, DSK, and FTB •RS-422A interface •Communication of E-File and initial panel information with BVE-910/9000/9100 •DME-450P interface •Four Black Burst Outputs •GPI Input port for M/E, DSK, FTB, and SELECT •Two PGM Outputs and one PVW Output

Supplied accessories:	AC power cord Control panel cable (5m) Extension board Operation and maintenance manual
Optional accessories:	SWC-2530D Control panel cable (30m) RMM-3000 Rack mount kit

Specifications

Power requirements:	AC 100V to 240V ±10%, 50/60Hz ±10%
Power consumption:	125W
Operating temperature:	0° to 40°C (32° to 104°F)
Storage temperature:	–20° to 60°C (–4° to 140°F)
Dimensions:	
Control panel:	Approx. 424 (W) × 111 (H) × 440 (D) mm (16¾ × 4⅜ × 17⅜ inches)
Processor unit:	Approx. 424 (W) × 132 (H) × 350 (D) mm (16¾ × 5¼ × 15¾ inches)
Mass:	
Control panel:	Approx. 4.4 kg (9 lb 11 oz)
Processor unit:	Approx. 13 kg (28 lb 11 oz)

*For further information, please contact the nearest Sony office.

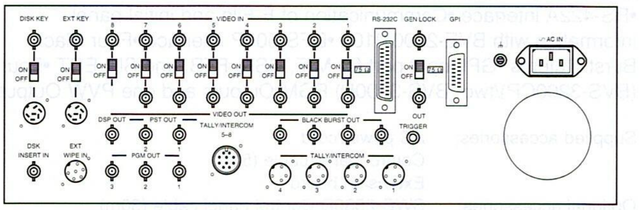
SEG-2550AP

E-File

Colour special effects generator

*Production of this product has been discontinued. For details, please consult your nearest Sony office.

•The SEG-2550AP is a compact and cost effective special effects generator for program production and post production •The E-File function, which memorizes and reproduces the setting of switches and buttons and the movement of the controls, levers and sticks, is adopted •Interface capability with the BVE-900/910 automatic editing control unit and an external computer •A total of 137 versatile wipe patterns •Wipe pattern modifiers such as the positioner, the border wipe, softness border edge, echo/pairing wipe, and mosaic wipe are provided •8 video inputs and 4 bus lines (A, B, PGM and PST) for special effects (MIX, WIPE, and EXTERNAL KEY) •Built-in background colour •Built-in downstream keyer (DSK) •Independent colour generation for DSK •Shadow and edge adjustment for the key signal •Built-in sync generator •4 black burst signal outputs for synchronization of video equipment •SC and H phase indicators for easy phase adjustment •19-inch rack mountable •Torque adjustment of the effects levers



Supplied accessories: AC power cord
Wipe pattern list
CCJ connector for tally/intercom
Designation label
D-sub (15-pin) connector
Transparent Designation Chips
White Seal

Specifications

Power requirements: AC 220 to 240V, 50/60Hz
Power consumption: 92W
Operating temperature: 0 to 40°C (32 to 104°F)
Dimensions: Approx. 481 (W) × 155.5 (H) × 310.4 (D) mm (19 × 6⅛ × 12¼ inches)
Mass: Approx. 14.5 kg (31 lb 15 oz)
Video signal system: PAL
Switching system: Vertical blanking switcher
Effects: MIX
  Mixing by PGM/PST MIX lever and the EFF lever
WIPE
  137 wipe patterns (selectable)
  Wipe edge: The softness is continuously variable
  Border: Hue, chroma, luminance and width are continuously variable
  Pairing: Scanning lines 2 lines/3 lines/4 lines (selectable)
  Echo: Possible
EXT KEY
  Output signal (DIN, 6-pin)
    HD, VD, 4Vp-p, 75Ω, unbalanced
  Input signal (BNC type and DIN, 6-pin)
    0.7Vp-p (video), 1Vp-p (VS), 75Ω, unbalanced with 75Ω termination switch
  EXT KEY connector (BNC type and DIN, 6-pin) with 75Ω termination switch
  Slicer circuit is included (Clip level is variable)
DOWNSTREAM KEYER
  Output signal (DIN, 6-pin)
    HD, VD, 4Vp-p, 75Ω, unbalanced
  Input signal (BNC type and DIN, 6-pin)
    0.7Vp-p (video), 1Vp-p (VS), 75Ω, unbalanced
  DSK KEY connector: (BNC type and DIN, 6-pin) with 75Ω termination switch
  Shadow: Wide and narrow (selectable)
  Edge: Variable
  Colour matte: Continuously variable
  Chroma: Approx. 0 to 700mVp-p (variable according to the hue level)
  Hue: 0 to 360°
  Luminance (Y): Approx. 50 to 700mV continuously variable
BACKGROUND COLOUR
  Chroma: Approx. 0 to 700mVp-p (variable according to the hue level)
  Hue: 0 to 360°
  Luminance (Y): Approx. 50 to 700mV continuously variable

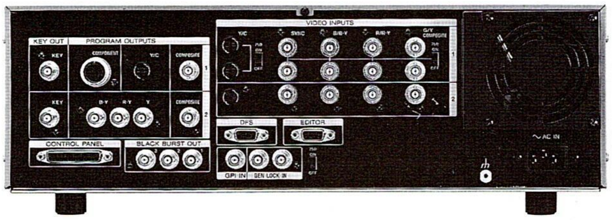
Input signal: VIDEO IN 1 to 8 connectors (BNC type) × 8
  0.7Vp-p (VB) or 1Vp-p (VBS), 75Ω, unbalanced with 75Ω termination switches
  (The INDICATION selector does not function with the VB input signal.)
GENLOCK IN connector (BNC type) × 1
  0.3V/0.3V (BS) or 1Vp-p (VBS), with 75Ω termination switch
DSK INSERT IN connector (BNC type) × 1
  1Vp-p (VS)
EXT WIPE IN connector (DIN, 6-pin) × 1
Output signal: VIDEO OUT 1 to 8 connector (BNC type) × 8
  1Vp-p (VBS), 75Ω, unbalanced (loop-through output of the corresponding VIDEO IN connector)
PGM OUT 1 to 3 connector (BNC type) × 3
  1Vp-p (VBS), 75Ω, unbalanced
PST OUT 1 to 2 connector (BNC type) × 2
  1Vp-p (VBS), 75Ω, unbalanced
GENLOCK OUT connector (BNC type) × 1
  (loop-through output of GENLOCK IN connector)
DSP OUT connector (BNC type) × 1
  1Vp-p (VS), 75Ω, unbalanced
BLACK BURST OUT 1 to 4 connector (BNC type) × 4
  0.3V/0.3Vp-p (BS), 75Ω, unbalanced
Tally/Intercom: TALLY/INTERCOM 1 to 4 connector (DIN, 4-pin) × 4
TALLY/INTERCOM 5 to 8 connector (CCJ, 10-pin) × 1
Maximum pick-up value in a relay: 24V 200mA DC
Trigger: TRIGGER (Special minijack) × 1
  TAKE function by earth
  (OPEN: +5V, impedance 65kΩ)
GPI: GPI (D-sub, 15-pin) × 1
  TAKE function, PGM DSK Cut-in/out by earth
  OPEN; ±5V, impedance 65kΩ)
RS-232C: 9600 baud (fixed), DTE (terminal), Signal level ±9V
DG: Less than 1%
DP: Less than 1°
Crosstalk: Over –50dB
Frequency response: 8MHz ±0.5dB
S/N ratio: Over –60dB

DCK-500P

Digital Chromakeyer

•8-bit Digital processiong for High Picture Quality •Auto-Chromakey •Manual Key Control Including Colour Cancel •Digital Coluor Correction •Multiple Format Inputs and Outputs •Snapshot Control from Editing Controller •Two Frame Synchronizers

SONY
DIGITAL CHROMAKEYER DCK-500
SONY
DIGITAL CHROMAKEYER DCK-500



Supplied accessories:	AC power cable Operation manual
Optional accessories:	Control panel adopter BKDC-501

Specifications

General

Power requirement:	AC 220/240V, 50/60Hz
Operating voltage:	AC 180 to 264V, 48 to 63Hz
Power consumption:	65W
Dimensions:	Processor 424 (W) × 132 (H) × 450 (D) mm ($16\frac{3}{4} \times 5\frac{1}{4} \times 17\frac{3}{4}$ inches) Control Panel 325 (W) × 52 (H) × 132 (D) mm ($12\frac{7}{8} \times 2\frac{1}{8} \times 5\frac{1}{4}$ inches)
Mass:	Processor Apporx. 12 kg (26 lb 7 oz) Control Panel Appox. 1.6 kg (3 lb 8 oz)
Operating temperature:	0 to 40°C (32 to 104°F)

Inputs

Video Inputs 1/2:	
Input 1 Input 2	Loop through
Composite	BNC type Video: 1.0Vp-p, 75Ω Sync: 0.3Vp-p Burst: 0.3Vp-p
Y/C (S-video)	DIN 4-pin Y: 1.0Vp-p, 75Ω C: 0.3Vp-p, 75Ω, burst
Component (Betacam)	BNC type Y: 1.0Vp-p, 75Ω R-Y/B-Y: 0.525Vp-p, 75Ω, 100/0/75/0
Component RGB	BNC type RGB: 0.7Vp-p, 75Ω Sync: 0.3 to 4.0Vp-p, 75Ω
GENLOCK IN	BNC type, Loop-through Video: 1.0Vp-p, 75Ω Sync: 0.3Vp-p Burst: 0.3Vp-p

Outputs

PGM OUT 1/2	
Composite	BNC type Video: 1.0Vp-p, 75Ω Sync: 0.3Vp-p Burst: 0.3Vp-p
Y/C (S-video)*	DIN 4-pin Y: 1.0Vp-p, 75Ω C: 0.3Vp-p, 75Ω, burst
Component	12-pin (for OUTPUT 1), BNC type (for OUTPUT 2) Y: 1.0Vp-p, 75Ω R-Y/B-Y: 0.525Vp-p, 75Ω, 100/0/100/0
KEY OUT 1/2:	BNC tpye 1.0Vp-p, 75Ω, without sync
BLACK BURST OUT 1/2/3:	BNC type Sync: 0.3Vp-p, 75Ω, burst Burst: 0.3Vp-p, 75Ω, burst

Interface

Editor:	D-sub 9-pin, conforming to RS-422A
GPI:	BNC type, TTL level
Control panel:	D-sub 25-pin, conforming to RS-422A
DFS:	D-sub 9-pin, comforting to RS-422A

Signal Processing

Sampling Frequency:	Y: 908fH (fH: 15.625kHz) R-Y/B-Y: 1/2 × 908fH
Quantization:	Y/R-Y/B: 8 bits
Linearity (Composite output):	DP: Less than 2.5° - Composite input Less than 1.0° - Y/C, Component input DG: Less than 3.5% - Composite input Less than 2.0% - Y/C, Component input
Crosstalk:	Less than -50dB
Frequency response:	0 to 5MHz +0.5dB/-1dB
Signal to noise raito:	More than 51dB - Composite More than 55dB - Y/C, Component
Y/C delay:	Less than 20ns - Component Less than 50ns - Y/C, Composite

*OUTPUT 1 only

SECTION 4 VIDEO FILE SERVER SYSTEM

1. Multichannel video file server system
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VST-1000AP 124
1-2. VideoStore™
VSR-1000 125
VSH-1000 126

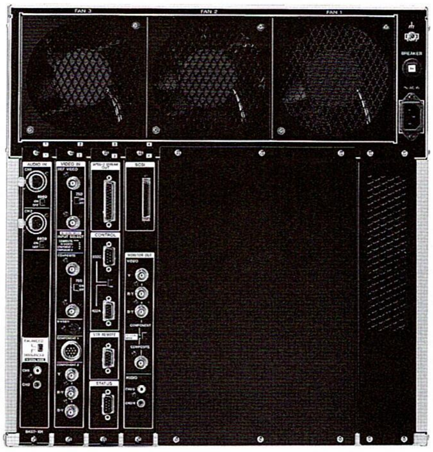
2. Multichannel video file server system accessories 127

VST-1000AP

MPEG-2 Encoding unit

•5Mbps or 10Mbps MPEG-2 Main Profile @ Main Level 4:2:0 Real Time Encoding •Processes full-bandwidth analog video input in either component, composite, or S-Video formats (BKST-106P) •SDI input option with BKST-103 SDI Input Board •Two channel (BKST-101) or four channel (BKST-102) audio input board is available with balanced/unbalanced connectors •Built-in decoder board with component or composite video outputs and four channel audio monitoring for encoder monitoring •Optional Motion Estimation Expansion Board (BKST-105) provides 200% expansion of the motions detection area for further improvement of image quality •Embeds clip ID number into MPEG-2 bit stream for playout verification •Application control through either RS-422A or RS-232C •Built-in RS-422A VTR machine control •Predictive Maintenance fault tolerance

Supplied accessories:	Terminator for SCSI interface (×1)	
	MPEG-2 Stream Cable (×1, length: 5m)	
	Rack Mount Bracket for 5U (× 4)	
Optional accessories:	BKST-101	Two Channel Audio Input Board
	BKST-102	Four Channel Audio Input Board
	BKST-103	SDI Input Board
	BKST-105	ME Expansion Board
	BKST-106P	Analig Video Input Board
	RMM-18DV	Rack Mount Rail
	SDX-VS300	AIT Drive Unit
	SDX-T3N	AIT Data Cartridge



Specifications

General

Power Requirements:	AC 100 to 240V, 50/60 Hz
Power Consumption:	Approx. 350W
Operating Temperature:	10 to 35°C (50 to 95°F)
Storage Temperature:	–20 to 55°C (–4 to 131°F)
Operating Humidity:	30 to 70%
Storage Humidity:	20 to 75%
Dimensions:	424 (W) ×443 (H) ×480 (D) mm (16 ¾ ×17 ½ ×19 inches)
Mass:	Approx. 26.6 kg (58 lb 10 oz) Approx. 28.6 kg (63 lb 2 oz) - Fully optioned

Video Inputs (with optional BKST-103 or BKST-106P)

< BKST-103 SDI Input Board >	
DIGITAL IN:	BNC (×1), 10bit 4:2:2 component serial digital video signal
ANALOG IN	COMPONENT BNC (×3)
Y:	1.0 Vp-p, 75Ω, sync negative
R-Y:	0.7 Vp-p, 75Ω
B-Y:	0.7 Vp-p, 75Ω
REFERENCE VIDEO IN:	BNC (×2, One for loop-through) 1.0 Vp-p, 75Ω (ON/OFF swtichable), sync negative
< BKST-106P Analog Video Input Board >	
COMPOSITE IN:	BNC (×2, One for loop-through) 1.0Vp-p, 75Ω (ON/OFF switchable), sync negative
COMPONENT 1 IN:	Circular 12-pin (×1)
Y:	1.0 Vp-p, 75Ω, sync negative
R-Y:	0.7 Vp-p, 75Ω
B-Y:	0.7 Vp-p, 75Ω
COMPONENT 2 IN:	BNC (×3)
Y:	1.0 Vp-p, 75Ω, sync negative
R-Y:	0.7 Vp-p, 75Ω
B-Y:	0.7 Vp-p, 75Ω
S-video (Y/C) IN:	DIN 4-pin S-terminal
Y:	1.0 Vp-p, 75Ω, sync negative
C:	0.3 Vp-p, 75Ω at burst
REFERENCE VIDEO IN:	BNC (×2, One for loop-through) 1.0 Vp-p, 75Ω (ON/OFF switchable), sync negative

Audio Inputs (with optional BKST-101 or BKST-102)

< BKST-101 Two Channel Audio Input Board >	
BALANCED:	XLR-3 type (×2, for 2 channels), +4dBu, 600Ω or 10kΩ (selectable)
UNBALANCED:	Phono (×2, for 2 channels), –10dBu, 47kΩ
< BKST-102 Four Channel Audio Input Board >	
BALANCED:	XLR-3 type (×4, for 4 channels) +4dBu, 600Ω or 10kΩ (selectable)
UNBALANCED:	Phono (×4, for 4 channels), –10dBu, 47kΩ

Video Monitor Outputs

COMPOSITE OUT:	BNC (×1), 1.0Vp-p, 75Ω, sync negative
COMPONENT OUT:	BNC (×3)
	Y: 1. 0Vp-p, 75Ω, sync negative
	R-Y: 0.7Vp-p, 75Ω
	B-Y: 0.7Vp-p, 75Ω

Audio Monitor Outputs

UNBALANCED OUT:	Phono (×2, for 2 channels), –5dBu, 47kΩ
HEADPHONE OUT:	Stereo Phone (×1) –14dBu (with volume control), 8Ω

Interface

MPEG-2 STREAM OUT:	D-sub 25-pin, RS-422A
CONTROL 232C:	D-sub 9-pin, RS-232C
CONTROL 422A:	D-sub 9-pin, RS-422A
VTR REMOTE:	D-sub 9-pin, RS-422A
STATUS:	D-sub 9-pin, RS-232C
SCSI:	SCSI-2 (Half-pitch)

Signal Processing

VIDEO Encoding	
Video Coding:	MPEG-2 MP@ML SYNTAX
Source Format:	CCIR REC601, 720 pixels ×576 lines
MPEG-2 Coding Algorithm	
Frame Structure Fix:	Frame/Field MC. DCT adaptive
Motion Vector Range:	Horizontal: Max. 48 pixels Max. 96 pixels - with the optional BKST-105 Vertical: Max. 32 lines Max. 48 lines - with the optional BKST-105
AUDIO Encoding	
Audio Coding:	MPEG AUDIO LAYER 1/2
Sampling Frequency:	48 kHz
Bit Rate:	Stereo 256 kbps
Mode:	Stereo
Audio/Video Bit Rate:	5.0Mbps/10Mbps, selectable

Safety Regulations	EN 60950, UL-1950, CSA C22.2 No.950
EMC Regulations	EN 55022 Class B, FCC Class A

VSR-1000

Media Control Unit

•Supports storage and multichannel playback of either 5Mbps or 10Mbps MPEG-2 Main Profile @ Main Level •Maximum of 12 (data rate of 5 Mbps) or 6 (data rate of 10 Mbps) channel simultaneous playback capability •Quick random access •Back to back playback without black •Maximum of seven VSH-1000 Media Units can be connected to one VSR-1000 •Fault Tolerant Architecture (Sony Predictive Maintenance™, Hot-Swapability, Non-Disruptive Faulting, etc.) •Versatile Clip Distribution with Clip Exchange Board (BKSR-103) and Ethernet Interface Board (BKSR-105) •Dedicated RS-232C port for diagnosis •Operation can also be triggered via a general purpose interface (GPI)

Supplied accessories:	75Ω terminator for SCSI interface (× 6)	
	Rack Mount Bracket for 5U (× 4)	
Optional accessories:	BKSR-101P	One Channel Decoder Board
	BKSR-102	Two Channel Decoder Board
	BKSR-103	Clip Exchange Board
	BKSR-104	Power Unit
	BKSR-105	Ethernet Internet Board
	BKSR-106	SDI Output Board
	RMM-18DV	Rack Mount Rail
	SDX-VS300	AIT Drive Unit
	SDX-T3N	AIT Data Cartridge

Specifications

General

Power Requirements:	AC100 to 240V, 50/60Hz
Power Consumption:	Approx. 350W
Operating Temperature:	10 to 35°C (50 to 95°F)
Storage Temperature:	–20 to 55°C (–4 to 131°F)
Operating Humidity:	30 to 70%
Storage Humidity:	20 to 75%
Dimensions:	424 (W) × 443 (H) × 480 (D) mm (16 ¾ × 17 ½ × 19 inches)
Mass:	Approx. 22.8 kg (49 lb 9 oz) Approx. 35.0 kg (77 lb 3 oz) - Fully optioned

Inputs

REFERENCE VIDEO IN:	BNC (× 2, One for loop-through), 1.0Vp-p, 75Ω
MPEG-2 STREAM IN:	D-sub 25-pin, RS-422A

Outputs

<BKSR-101P One Channel Decoder Board>

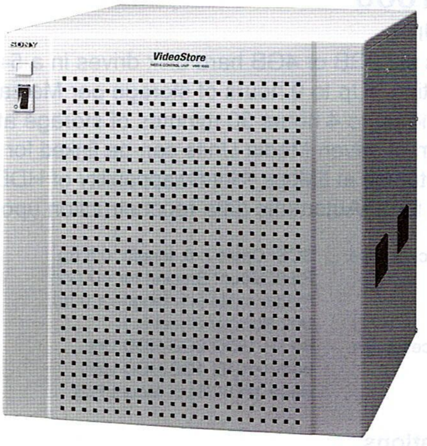
Bit Rate:	5.0Mbps/10.0Mbps
Number of Channel:	1 channel (Up to 6 boards can be installed in the VSR-1000)
Video Outputs	
COMPOSITE 1/2/3:	Composite (PAL), BNC (×3 per 1 channel), 1.0Vp-p, 75Ω
COMPONENT:	BNC (×3) Y: 1.0Vp-p R-Y: 0.7Vp-p B-Y: 0.7Vp-p
Audio Outputs	
AUDIO 1/2/3/4:	XLR type (×1 per 1 channel), stereo, +4dBu, 600kΩ, balanced

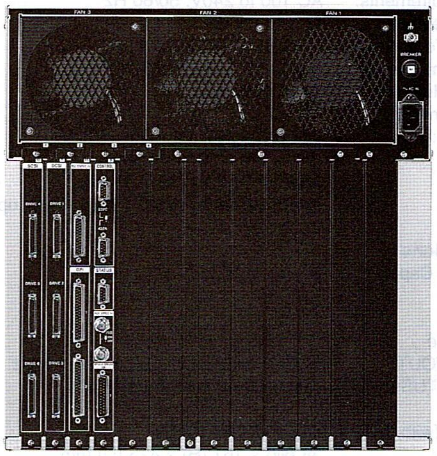
<BKSR-102 Two Channel Decoder Board>

Bit Rate:	5.0Mbps
Number of Channel:	2 channels (Up to 6 boards can be installed in the VSR-1000)
Video Outputs	
COMPOSITE 1/2:	Composite (PAL), BNC (×2 per 1 channel), 1.0Vp-p, 75Ω
SYNC IN:	BNC (×1 per 1 channel), 1.0Vp-p, 75Ω
COMPONENT:	BNC (×3) Y: 1.0Vp-p R-Y: 0.7Vp-p B-Y: 0.7Vp-p
Audio Outputs	
AUDIO 1/2:	XLR type (×1 per 1 channel), stereo, +4dBu, 600kΩ, balanced

<BKSR-106 SDI Output Board>

Bit Rate:	5.0Mbps/10.0Mbps
Number of Channel:	1 channel (Up to 6 boards can be installed in the VSR-1000)





Digital Out	
SDI:	SMPTE Serial digital interface format (270Mbps) BNC (×2 per 1 channel),
Video Monitor Out	
COMPOSITE:	Composite (PAL), BNC (×1), 1.0Vp-p, 75Ω
Audio Monitor Out	
AUDIO 1/2/3/4:	XLR type (×1 per 1 channel), stereo, +4dBu, 600kΩ, balanced

Interface

MU Interface	
SCSI:	SCSI (Half-pitch, date transfer only)
MU STATUS:	D-sub 25-pin, Parallel I/O
Host Interface	
CONTROL 232C:	D-sub 9-pin, RS-232C
CONTROL 422A:	D-sub 9-pin, RS-422A
GPI 1/2:	D-sub 37-pin (×2)
STATUS	D-sub 9-pin, RS-232C
Clip Exchange (with the optional BKSR-103)	
MPEG-2 STREAM IN 2:	D-sub 25-pin, Parallel, RS-422A
MPEG-2 STREAM IN 3:	D-sub 25-pin, Parallel, RS-422A
MPEG-2 STREAM OUT:	D-sub 25-pin, Parallel, RS-422A
STREAMER:	SCSI-2 (Half-pitch)

Audio/Video Performance

Video	
Video Data:	MPEG-2 Encoded Data (ML@MP), 4.0Mbps/9.0Mbps
Resolution:	720 × 576 × 25Hz
Signal-to-Noise Ratio:	More than 46dB
Audio	
Audio Data:	MPEG-1 Layer 2, 256kbps
Sampling Frequency:	48kHz
Quantization:	16 bits, linear
Signal-to Noise Ratio:	More than 80dB
Audio Video Bit Rate:	5.0Mbps/10.0Mbps

Search Performance

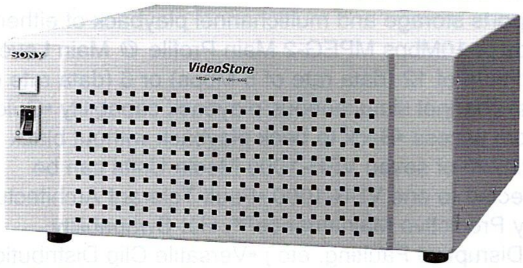
Clip Access Time:	Less than 4.0s

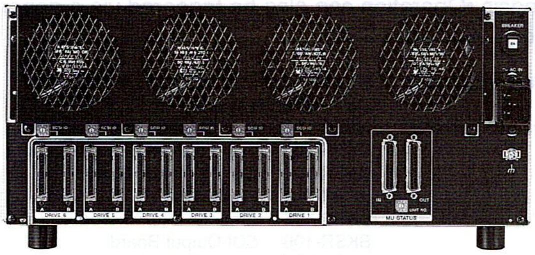
Safety Regulations	EN 60950, UL-1950, CSA C22.2 No.950
EMC Regulations	EN 55022 Class B, FCC Class A, IC Class A

VSH-1000

Media Unit

•Contains six 2GB or 4GB hard disk drives in a 5+1 RAID-3 configuration. •Up to 9 hours of storage per Media Unit at 5Mbps and up to 4 hours 30 minutes of storage at 10Mbps •Maximum of seven Media Units can be linked for over 60 hours of storage at 5Mbps •Hot-Swappability of HDDs, power units and fans •Automatic data reconstruction upon hot-swap





Supplied accessories:	SCSI Cable (×6, length: 0.6 m) Rack Mount Bracket for 4U (×2) Status cable (×1, length: 1.0 m) Unit Number Sheet (×1)
Optional accessories:	BKSH-102G 2GB HDD Unit BKSH-104G 4GB HDD Unit RMM-18DV Rack Mount Rail

Specifications

General

Power Requirements:	AC 100 to 240V, 50/60 Hz
Power Consumption:	Approx. 160W
Operating Temperature:	10 to 35°C (50 to 95°F)
Storage Temperature:	–20 to 55°C (–4 to 131°F)
Operating Humidity:	30 to 70%
Storage Humidity:	20 to 75%
Dimensions:	424 (W) × 177 (H) × 500 (D) mm (16 ¾ × 7 × 19 ¾ inches)
Mass:	Approx. 16.2 kg (35 lb 11 oz) Approx. 27.6 kg (60 lb 13 oz) - Fully optioned

Configurations

HDD Install Capacity:	6

Interface

MU Interface

SCSI IN/OUT:	SCSI-2 (Half-pitch × 6), 8 bits, 5 MHz
MU STATUS IN/OUT:	D-sub 25-pin (×1), Parallel I/O

Hard Disk (with BKSH-102G or BKSH-104G)

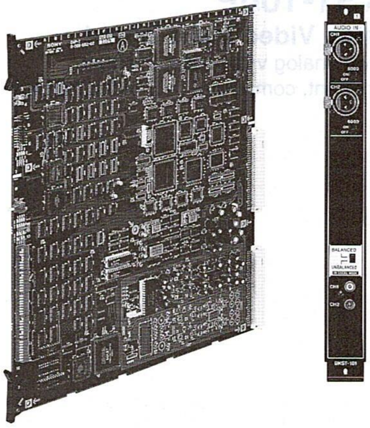
Dimensions:	38 (W) × 161 (H) × 423 (D) mm (1 ½ × 6 ⅜ × 16 ¾ inches)
Mass:	Approx. 1.9 kg (4 lb 3 oz)
Programme Recording Time (at 5Mbps):	4 hours 20 minutes-with 6 BKSH-102Gs 9 hours-with 6 BKSH-104Gs

Safety Regulations	EN 60950, UL-1950, CSA C22.2 No.950
EMC Regulations	EN 55022 Class B, FCC Class A, IC Class A

BKST-101

Two Channel Audio Input Board

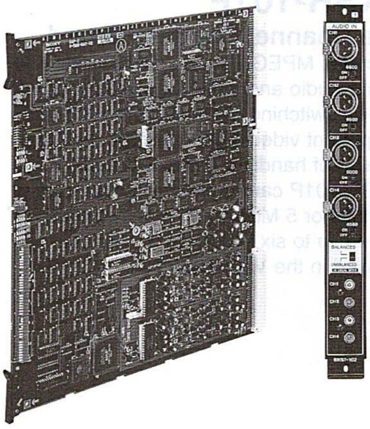
•Enables 2-channel audio input to VST-1000AP •Balanced and unbalanced AUDIO IN connectors are provided



BKST-102

Four Channel Audio Input Board

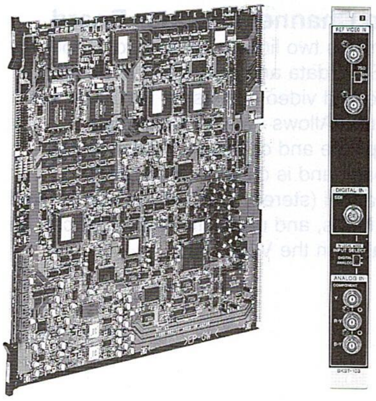
•Enables 4-channel audio input to VST-1000AP •Balanced and unbalanced AUDIO IN connectors are provided



BKST-103

SDI Input Board

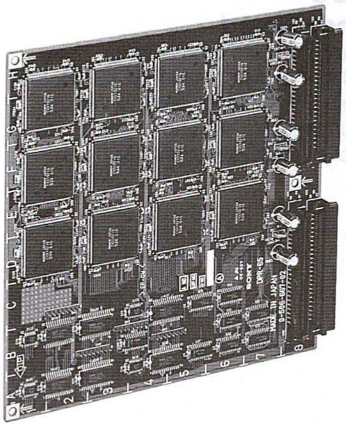
•Enables 1-channel SDI or Component input to VST-1000AP •REFERENCE VIDEO IN connectors are provided



BKST-105

ME Expansion Board

•Provides 200% expansion of the motion detection area of VST-1000AP •Improves motions interpolation performance, providing outstanding picture quality, particularly when encoding video sequences with fast horizontal movements

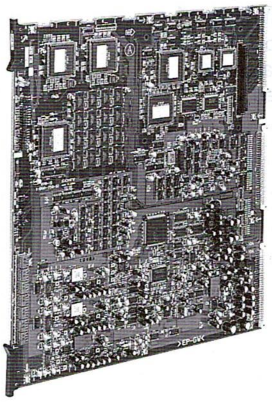


2. Multichannel video file server system accessories

BKST-106P

Analog Video Input Board

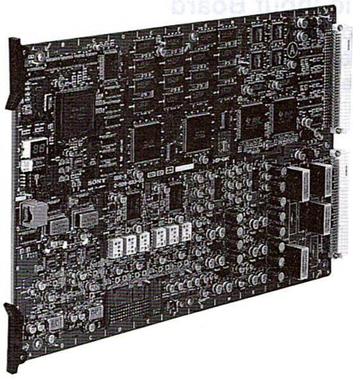
•Allows analog video input in either component, composite, or S-video formats



BKSR-101P

One Channel Decoder Board

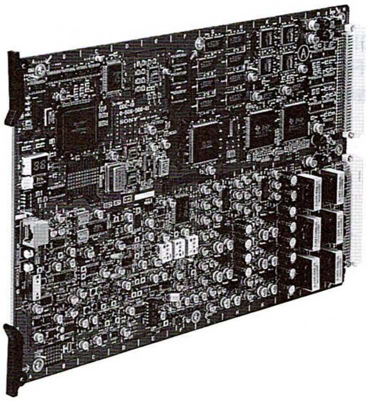
•Decodes MPEG-2 data and converts it to analog audio and video signals for output •Allows switching between composite and component video signal formats, and is capable of handling 4-channel audio •BKSR-101P can operate at a data rate of 10 Mbps or 5 Mbps, and in gen-locked mode •Up to six BKSR-101P can be installed in the VSR-1000



BKSR-102

Two Channel Decoder Board

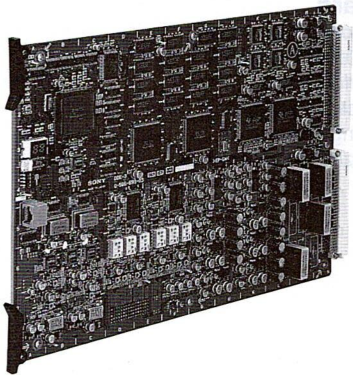
•Contains two lines of circuits to decode MPEG-2 data and converts it to analog audio and video signals for two channels outputs •Allows switching between composite and component video signal formats, and is capable of handling 2-channel (stereo) audio •Data rate is fixed at 5 Mbps, and up to six BKSR-102 can be installed in the VSR-1000



BKSR-103

Clip Exchange Board

•Enables exchanging video clips among multiple VSR-1000 •Enables input MPEG-2 bit streams from two VST-1000AP units to the VSR-1000 simultaneously •Able to upload and download clips via a data streamer SDX-VS300

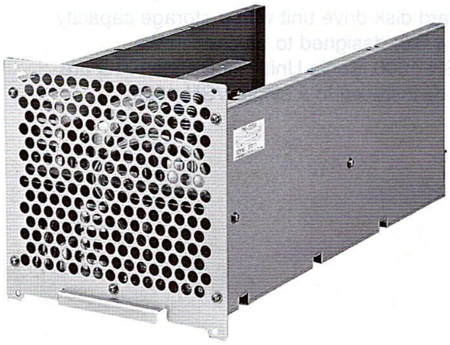


2. Multichannel video file server system accessories

BKSR-104

Power Unit

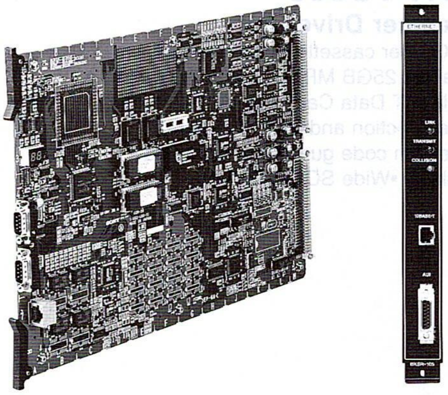
•Doubles the power supply of the VSR-1000 to assure uninterrupted operation should one of the supplies break down



BKSR-105

Ethernet Interface Board

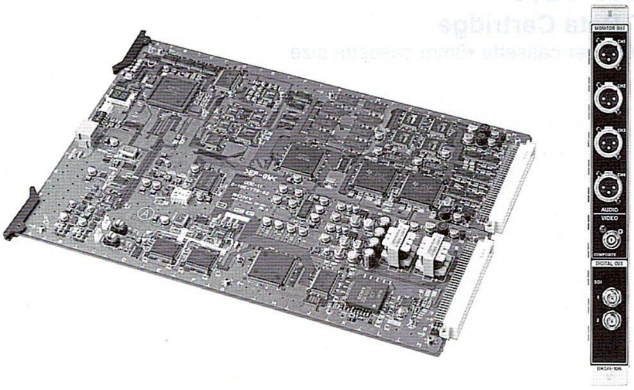
•Conforms to 10 BASE-T or AUI (IEEE 802.3) and supports the FTP (File Transfer Protocol) •Allows clips to be transferred via an Ethernet network



BKSR-106

SDI Output Board

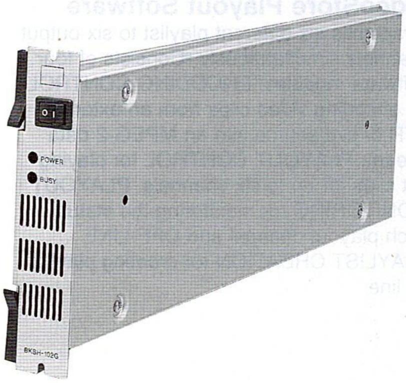
•Decodes MPEG-2 data and converts it to SDI signal for output •1-channel composite monitor out is provided •BKSR-106 can operate at a data rate of 10Mbps or 5Mbps •Up to six BKSR-106 can be installed in the VSR-1000



BKSH-102G

2GB HDD Unit

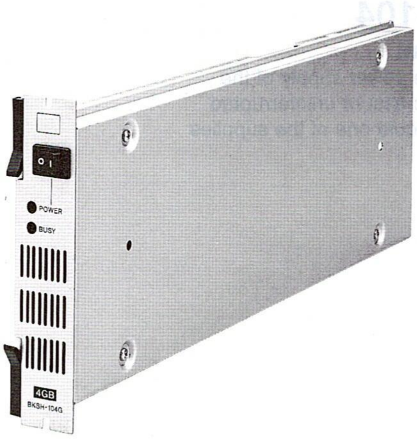
•BKSH-102G is a hard disk drive unit with a storage capacity of 2 GB, designed to be used in the VSH-1000 Media Unit •Six BKSH-102Gs are to be installed in a single VSH-1000



BKSH-104G

4GB HDD Unit

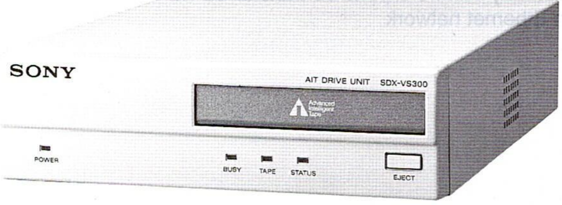
•Hard disk drive unit with a storage capacity of 4 GB, designed to be used in the VSH-1000 Media Unit •Six BKSH-104G are to be installed in a single VSH-1000


POWER
BUSY
4GB
BKSH-104G

SDX-VS300

Streamer Drive Unit

•25 GB per cassette •8mm cassette size •Enables 25GB MPEG-2 data recorde to a single AIT Data Cartridge •A 'Read after Write' function and three-level error correction code guarantee high data reliability •Wide SCSI interface


SONY
AIT DRIVE UNIT SDX-VS300
Advanced Intelligent Tape
POWER
BUSY
TAPE
STATUS
EJECT

SDX-T3N

AIT Data Cartridge

•25 GB per cassette •8mm cassette size

SDX-T3N
COMPUTER GRADE
DATA CARTRIDGE
CARTOUCHE DE DONNEES
Native Capacity 25 GB
170 m / 557 feet
Advanced Metal Evaporated
SONY
Advanced Intelligent Tape
SONY
SDX-T3N
Advanced Intelligent Tape

BZSR-100

VideoStore Playout Software

•Transmits six different playlist to six output channels simultaneously •Consists of four software modules: ENCODING CONTROL for encoding video clips from an external VTR or live source into an MPEG-2 data stream, PLAYOUT CONTROL for playing out clips for up to six channels, PLAYOUT MONITORING for monitoring the status of each playout channel and OFF-LINE PLAYLIST CREATION for creating playlist off line

BZSR-210

VST Control Software for Web Server

•Controls VST-1000AP for encoding and loading video clips

BZSR-220

VSR Control Software for Web Server

•Allows VideoStore control by multiple computers via an Internet home page •Play, stop, repeat play of video clips can be controlled by multiple computers

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BZSR-230

Technical Reference

•Enables software developer design client software for BZSR-220 VSR Control Software for Web Server •Describes the software operating environment, followed by browser settings and HTML implementations

SECTION 5 DISPLAY PRODUCTS

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PVM-20M2E 135
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PVM-20M2MDE/20M2MDA 139
PVM-14M4E/14M4A 140
PVM-14M2E/14M2A 141
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1-2. Flat panel monitor

PFM-500A1WE 157

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PVM-146E 159
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2. Projectors

2-1. Multiscan projectors

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2-5. Projector accessories 183
2-6. Lenses for LCD projectors 203

3. Other

Digital scan converter

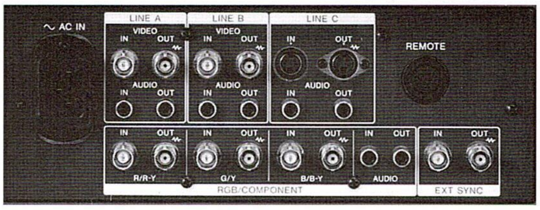
DSC-1024G 206

20" PVM-20M4E/20M4A[*1] (PAL/NTSC/SECAM/NTSC$_{4.43}$)

Colour Video Monitor

•HR Trinitron CRT assures a high resolution of 800TV lines •Adopts EBU standard phosphor •Accepts component (Y/R-Y/B-Y), RGB, Y/C and composite signals •Beam current feedback circuit for stability in the colour balance •Optional component serial digital interface kits BKM-101C (video)/ 102 (audio) available •Switchable aspect ratio (4:3 and 16:9) •Colour temperature D65, D93 or user preset (3200K to 10000K) selectable •On-screen display for adjustment/ operation •User preset function •Underscan, Blue Only and H/V delay mode available •Auto chroma/phase setup[*2] •Accepts external sync •Auto/Manual degaussing •Minimizes magnetic field emission •Mountable into an EIA standard rack with the optional SLR-103A

Supplied accessories:	20-pin remote cable Tally label AC cord AC plug holder Operation manual
Optional accessories:	BKM-101C (Component serial digital interface kit (video)) BKM-102 (Component serial digital interface kit (audio)) BKM-103 (Serial remote control kit for RS-422) SLR-103A (Slide rail) TU-1040E (Tuner unit)



Specifications

CRT	
AG pitch:	0.31 mm
phosphor:	EBU
CRT size:	53.3 cm (20-inch) diagonally
Visible picture size:	48.3 cm (19-inch) diagonally
Resolution:	800TV lines
Colour system:	PAL, NTSC, SECAM, NTSC$_{4.43}$[*3]
Aperture correction:	0 to +6dB
Frequency response:	LINE: 10.0 MHz (±3dB) *Y signal only RGB: 10.0 MHz (±3dB)
Synchronization:	AFC time constant 1.0mS
Normal scan:	7% over scan
Under scan:	5% under scan
Linearity:	H: less than 5% V: less than 5%
Convergence:	centre: 0.5 mm (typical) peripheral: 0.7 mm (typical)
Raster size stability:	H: 1.0% V: 1.5%
HV regulation:	4.0%
Colour temperature:	D65, D93, USER (3200K to 10000K)
Audio out:	0.8W (distortion: less than 5%)
Power Consumption:	130W (with SDI: 140W)
AC input range:	AC100 to 240V (50/60Hz)
Operation temperature:	0° to 35°C
Storage temperature:	-10° to 40°C
Operating humidity:	35 to 85% (no condensation)
Storage humidity:	0 to 90%
Pressure:	880 to 1060hPa
Dimensions:	450(W) × 458(H) × 503(D) mm (17¾ × 18⅛ × 19⅞ inches)
Mass:	30.0 kg (66 lb 2 oz)

Inputs / Outputs

LINE A/B[*4]

1.0Vp-p±6dB
Loop-through BNC automatic 75Ω termination[*5]

LINE C[*4]

Y: 1.0Vp-p±6dB
C: 0.3Vp-p±6dB
Loop-through Mini DIN 4-pin automatic 75Ω termination[*5]

RGB / Component (selectable)[*6]

R/R-Y: 0.7Vp-p±6dB
G: 0.7Vp-p±6dB
Sync on G: 0.3Vp-p±6dB
Y: 0.7Vp-p±6dB
B/B-Y: 0.7Vp-p±6dB
Loop-through BNC automatic 75Ω termination[*5]

External Sync

4Vp-p±6dB, negative
Loop-through BNC automatic 75Ω termination[*5]

Regulation Compliance:

TÜV IEC-950, CE (EMC, LVD)
C-Tick (for PVM-20M4A)

[*1] PVM-20M4A is an Australian version.
[*2] Phase setup is for NTSC signals only.
[*3] The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
[*4] The Y/C input has priority over the Composite video input.
[*5] 75Ω termination is automatically set to OFF when connection is made to the OUT connector.
[*6] Video amplitude 100/0/100 colour bars.

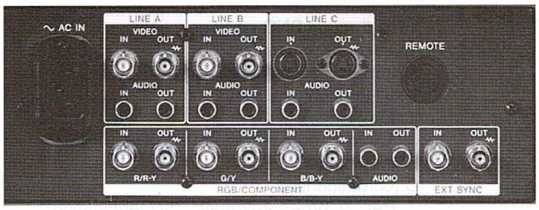
20" PVM-20M2E (PAL/NTSC/SECAM/NTSC$_{4.43}$)

Colour Video Monitor

•High resolution of 600TV lines with dark tint CRT for high contrast image reproduction •Accepts component (Y/R-Y/B-Y), RGB, Y/C and composite signals •Beam current feedback circuit for stability in the colour balance •Optional component serial digital interface kits BKM-101C (video)/102 (audio) available •Switchable aspect ratio (4:3 and 16:9) •Colour temperature D65, D93 or user preset (3200K to 10000K) selectable •On-screen display for adjustment/operation •User preset function •Underscan, Blue Only and H/V delay mode available •Auto chroma/phase setup*1 •Accepts external sync •Auto/Manual degaussing •Mountable into an EIA standard rack with the optional SLR-103A

Trinitron
SONY

Supplied accessories:	20-pin remote cable Tally label AC cord AC plug holder Operation manual
Optional accessories:	BKM-101C (Component serial digital interface kit (video)) BKM-102 (Component serial digital interface kit (audio)) BKM-103 (Serial remote control kit for RS-422) SLR-103A (Slide rail) TU-1040E (Tuner unit)



Specifications

CRT	
AG pitch:	0.4 mm
phosphor:	P-22
CRT size:	53.3 cm (20-inch) diagonally
Visible picture size:	48.0 cm (19-inch) diagonally
Resolution:	600TV lines
Colour system:	PAL, NTSC, SECAM, NTSC$_{4.43}$*2
Aperture correction:	0 to +6dB
Frequency response:	LINE: 10.0 MHz (±3dB) *Y signal only RGB: 10.0 MHz (±3dB)
Synchronization:	AFC time constant 1.0mS
Normal scan:	7% over scan
Under scan:	5% under scan
Linearity:	H: less than 5% V: less than 5%
Convergence:	centre: 0.6 mm (typical) peripheral: 1.0 mm (typical)
Raster size stability:	H: 1.0% V: 1.5%
HV regulation:	4.0%
Colour temperature:	D65, D93, USER (3200K to 10000K)
Audio out:	0.8W (distortion: less than 5%)
Power Consumption:	120W (with SDI: 130W)
AC input range:	AC100 to 240V (50/60Hz)
Operation temperature:	0° to 35°C
Storage temperature:	-10° to 40°C
Operating humidity:	35 to 85% (no condensation)
Storage humidity:	0 to 90%
Pressure:	880 to 1060hPa
Dimensions:	450(W) × 458(H) × 503(D) mm (17¾ × 18⅛ × 19⅞ inches)
Mass:	30.0 kg (66 lb 2 oz)

Inputs / Outputs

LINE A/B*3	1.0Vp-p±6dB Loop-through BNC automatic 75Ω termination*4
LINE C*3	Y: 1.0Vp-p±6dB C: 0.3Vp-p±6dB Loop-through Mini DIN 4-pin automatic 75Ω termination*4
RGB / Component (selectable)*5	R/R-Y: 0.7Vp-p±6dB G: 0.7Vp-p±6dB Sync on G: 0.3Vp-p±6dB Y: 0.7Vp-p±6dB B/B-Y: 0.7Vp-p±6dB Loop-through BNC automatic 75Ω termination*4
External Sync	4Vp-p±6dB, negative Loop-through BNC automatic 75Ω termination*4

Regulation Compliance:

TÜV IEC-950, CE (EMC, LVD)

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*1 Phase setup is for NTSC signals only.
*2 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*3 The Y/C input has priority over the Composite video input.
*4 75Ω termination is automatically set to OFF when connection is made to the OUT connector.
*5 Video amplitude 100/0/100 colour bars.

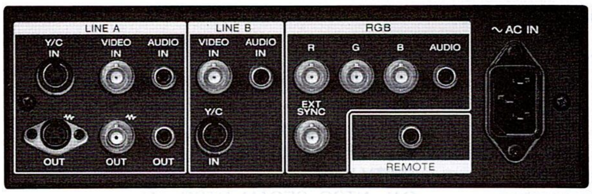
20" PVM-20N6E/20N6A*1 (PAL/NTSC/SECAM/NTSC4.43)

Colour Video Monitor

•Resolution of 500TV lines •Beam current feedback circuit for stability in the colour balance •Accepts composite video, Y/C and RGB signals •Switchable aspect ratio (4:3 and 16:9) •On-screen menu for adjustment/operation •Input channel can be selected via REMOTE terminal (Phono) •Built-in speaker •One touch recall of last menu used (VOLUME, CONTRAST, BRIGHTNESS, CHROMA and PHASE) •Mountable into a 19-inch EIA standard rack with the optional SLR-103A

Optional accessories: Slide rail kit SLR-103A

Trinitron
SONY



Specifications

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system:	PAL/NTSC/SECAM/NTSC4.43*2
Picture tube:	53 cm(20-inch), visible picture size 48.0 cm (min.) (19-inch) measured diagonally, 90° deflection
Horizontal resolution:	500TV lines at centre
Audio power output:	Monaural, 0.8W with built-in speaker
Power requirements:	AC 100 to 240V, 50/60Hz
Power consumption:	105W
Dimensions:	449(W) × 441(H) × 502(D) mm (17 11/16 × 17 3/8 × 19 3/4 inches)
Mass:	28 kg (61 lb 11 oz)
VIDEO	
LINE A*3	Loop-through BNC 1.0Vp-p, sync negative, Automatic 75Ω termination*4 Loop-through Mini DIN 4-pin Y (luminance): 1.0Vp-p, sync negative, Automatic 75Ω termination*4 C (chrominance): PAL: 0.3Vp-p, Automatic 75Ω termination*4 NTSC: 0.286Vp-p, Automatic 75Ω termination*4
LINE B*3	BNC 1.0Vp-p, sync negative, 75Ω Mini DIN 4-pin Y: 1.0Vp-p, sync negative, 75Ω C: PAL: 0.3Vp-p, sync negative, 75Ω NTSC: 0.286Vp-p, 75Ω
RGB/Sync	BNC R/G/B: 0.7Vp-p, 75Ω Sync on G: 0.3Vp-p, 75Ω Sync: 4Vp-p, 75Ω
AUDIO	
LINE A	Loop-through Phono -5dBu, high impedance
LINE B	Phono -5dBu, high impedance
RGB/Sync	Phono -5dBu, high impedance

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*1 PVM-20N6A is an Australian version.
*2 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*3 The Y/C input has priority over the Composite video input.
*4 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

20" PVM-20N5E/20N5A*1 (PAL/NTSC/SECAM/NTSC$_{4.43}$)

Colour Video Monitor

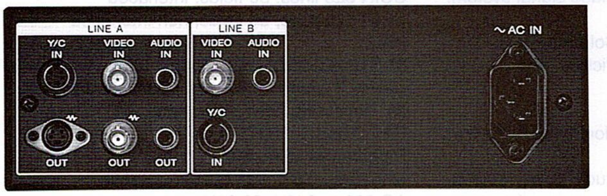
•Resolution of 500TV lines •Beam current feedback circuit for stability in the colour balance •Accepts composite video and Y/C signals •On-screen menu for adjustment/operation •Built-in speaker •One touch recall of last menu used (VOLUME, CONTRAST, BRIGHTNESS, CHROMA and PHASE) •Mountable into a 19-inch EIA standard rack with the optional SLR-103A

Trinitron
SONY

Optional accessories: Slide rail kit SLR-103A

Specifications

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system:	PAL/NTSC/SECAM/NTSC$_{4.43}$*2
Picture tube:	53 cm(20-inch), visible picture size 48.0 cm(min.) (19-inch) measured diagonally, 90° deflection
Horizontal resolution:	500TV lines at centre
Audio power output:	Monaural, 0.8W with built-in speaker
Power requirements:	AC 100 to 240V, 50/60Hz
Power consumption:	105W
Dimensions:	449(W) × 441(H) × 502(D) mm ($17\frac{11}{16} \times 17\frac{3}{8} \times 19\frac{3}{4}$ inches)
Mass:	28 kg (61 lb 11 oz)
VIDEO	
LINE A*3	Loop-through BNC 1.0Vp-p, sync negative, Automatic 75Ω termination*4 Loop-through Mini DIN 4-pin Y(luminance): 1.0Vp-p, sync negative,Automatic 75Ω termination*4 C(chrominance): PAL: 0.3Vp-p, Automatic 75Ω termination*4 NTSC: 0.286Vp-p, Automatic 75Ω termination*4
LINE B*3	BNC 1.0Vp-p, sync negative, 75Ω Mini DIN 4-pin Y: 1.0Vp-p, sync negative, 75Ω C: PAL: 0.3Vp-p, sync negative, 75Ω NTSC: 0.286Vp-p, 75Ω
AUDIO	
LINE A	Loop-through Phono -5dBu, high impedance
LINE B	Phono -5dBu, high impedance



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*1 PVM-20N5A is an Australian version.
*2 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*3 The Y/C input has priority over the Composite video input.
*4 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

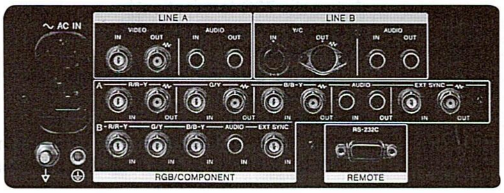
20" PVM-20M7MDE (PAL)

Colour Video Monitor for medical use

HR
100Hz DOUBLE SCAN
SONY

•HR Trinitron CRT assures a high resolution of 550TV lines[*1] at 15kHz/800TV lines at progressive scan •Adopts EBU phosphors •100Hz double scan •Digital PAL comb filter for accurate image reproduction •Field doubling scanning to reduce flicker phenomena •Component (Y/R-Y/B-Y or RGB) input facility •On-screen display in multiple language for adjustment/operation •6500K/5600K/User preset colour temperature selectable •Accepts external sync •RS-232C serial remote control capability •Remote/tally input •Power saving function is available •Mountable into a 19-inch EIA standard rack with optional SLR-103A •White colour cabinet with side and control panel covers •Complies with IEC-601-1 safety regulation

Supplied accessories:	Side covers Control panel cover RS-232C interface manual Quick reference card AC power cord Panel hinges Instructions for use
Optional accessories:	Slide rail kit SLR-103A



Specifications

Video signal system:	CCIR 625 lines, 50 fields, interlaced CCIR 625 lines, 50 fields, non-interlaced
Colour system:	PAL
Picture tube:	53.3 cm(20-inch), HR Trinitron tube, visible picture size 48.3 cm(min.) (19-inch) measured diagonally, 90° deflection, EBU phosphors
Horizontal resolution:	PAL (15kHz): 550TV lines[*1] Progressive scan: 800TV lines
Audio power output:	Monaural, 0.8W with built-in speaker
Power requirements:	AC 220 to 240V, 50/60Hz
Power consumption:	Approx. 160W
Dimensions:	450(W) × 457.5(H) × 503(D) mm (17¾ × 18⅛ × 19⅞ inches)
Mass:	34 kg(74 lb 15 oz)
VIDEO	
LINE A	Loop-through BNC 1.0Vp-p, sync negative, Automatic 75Ω termination[*2]
LINE B	Loop-through Mini DIN 4-pin Y(luminance): 1.0Vp-p, sync negative, Automatic 75Ω termination[*2] C(chrominance): 0.3Vp-p, Automatic 75Ω termination[*2]
RGB/Component	A: Loop-through BNC R-Y/B-Y: 0.7Vp-p, Automatic 75Ω termination[*2] Y: 1Vp-p, Automatic 75Ω termination[*2] R/G/B: 0.7Vp-p, Automatic 75Ω termination[*2] Sync on G: 0.3Vp-p, negative, Automatic 75Ω termination[*2] Sync: 4Vp-p negative, Automatic 75Ω termination[*2] B:BNC R-Y/B-Y: 0.7Vp-p, 75Ω Y: 1Vp-p, 75Ω R/G/B: 0.7Vp-p, 75Ω Sync on G: 0.3Vp-p, negative, 75Ω Sync: 4Vp-p negative, 75Ω
AUDIO	
LINE A	Loop-through Phono -5dBu, high impedance
LINE B	Loop-through Phono -5dBu, high impedance
RGB/Component	A: Loop-through Phono -5dBu, high impedance B: Phono -5dBu, high impedance

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*1 Maximum resolution of the field doubling digital device circuit.

*2 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

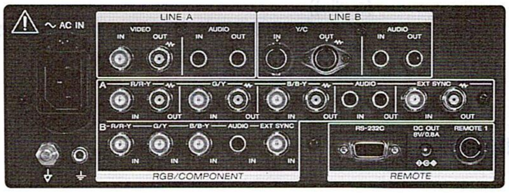
20" PVM-20M2MDE/20M2MDA*1 (PAL/NTSC)

Colour Video Monitor for medical use

•High resolution of 600TV lines at centre •Beam current feedback circuit for stable colour reproduction •Component (Y/R-Y/B-Y or RGB) input facility •On screen display in multiple language for adjustment/operation •D65/D56/D93 User preset colour temperature selectable •Capable of observing two RGB input signals simultaneously with the RGB split mode •20% overscan/normal scan/underscan selection •Blue only mode •Accepts external sync •RS-232C serieal remote control capability •8V DC out •Tally lamp •Mountable into a 19-inch EIA standard rack with optional SLR-103A •White colour cabinet •Complies with EN-60601-1 safety regulation

Trinitron
SONY

Supplied accessories:	AC power cord (1) AC plug holder (1) Side covers (2) Control panel cover (1) Panel hinges (2) Remote control connector 8-pin mini DIN (1) Instructions for Use (1) RS-232C protocol manual
Optional accessories:	Slide rail kit SLR-103A



Specifications

Colour system:	PAL/NTSC (automatically selected)
Picture tube:	20-inch CRT with P-22 phosphor, visible picture size 479.8 mm (19-inch measured diagonally)
Horizontal resolution:	600TV lines at centre (Video inputs)
Audio power output:	Monaural, 0.8W with built-in speaker
Power requirements:	AC 100 to 240V 1.5 to 0.6A, 50/60Hz
Dimensions:	450(W) × 457.5(H) × 503(D)mm (17¾ × 18⅛ × 19⅞ inches)
Mass:	30.0kg(66 lb 2 oz)
VIDEO	
LINE A	Loop-through BNC 1.0Vp-p, sync negative, Automatic 75Ω termination*2
LINE B	Loop-through Mini DIN 4-pin Y(luminance): 1.0Vp-p, sync negative,Automatic 75Ω termination*2 C(chrominance): PAL: 0.3Vp-p, Automatic 75Ω termination*2 NTSC: 0.286Vp-p, Automatic 75Ω termination*2
RGB/Component	A: Loop-through BNC R-Y/B-Y: 0.7Vp-p, Automatic 75Ω termination*2 Y/Sync on G:1Vp-p, sync negative, Automatic 75Ω termination*2 R/G/B: 0.7Vp-p, Automatic 75Ω termination*2 Sync: 4Vp-p negative, Automatic 75Ω termination*2 B:BNC R-Y/B-Y: 0.7Vp-p, 75Ω Y/Sync on G: 1Vp-p, sync negative, 75Ω R/G/B: 0.7Vp-p, 75Ω Sync: 4Vp-p negative, 75Ω
AUDIO	
LINE A	Loop-through Phono -5dBu, high impedance
LINE B	Loop-through Phono -5dBu, high impedance
RGB/Component	A: Loop-through Phono -5dBu, high impedance B: Phono -5dBu, high impedance

*1: PVM-20M2MDA is an Australian version.

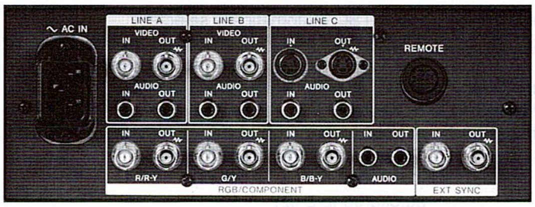
*2: 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

14" PVM-14M4E/14M4A*1 (PAL/NTSC/SECAM/NTSC$_{4.43}$)

Colour Video Monitor

•HR Trinitron CRT assures a high resolution of 800TV lines •Adopts EBU standard phosphor •Accepts component (Y/R-Y/B-Y), RGB, Y/C and composite signals •Beam current feedback circuit for stability in the colour balance •Optional component serial digital interface kits BKM-101C (video)/102 (audio) available •Switchable aspect ratio (4:3 and 16:9) •Colour temperature D65, D93 or user preset (3200K to 10000K) selectable •On-screen display for adjustment/ operation •User preset function •Underscan, Blue Only and H/V delay mode available •Auto chroma/phase setup*2 •Accepts external sync •Auto/Manual degaussing •Minimizes magnetic field emission •Mountable into an EIA standard rack with the optional MB-502B and SLR-102

HR Trinitron
SONY



Supplied accessories:	20-pin remote cable Tally label AC cord AC plug holder Operation manual
Optional accessories:	BKM-101C (Component serial digital interface kit (video)) BKM-102 (Component serial digital interface kit (audio)) BKM-103 (Serial remote control kit for RS-422) MB-502B (Rack mounting bracket) SLR-102 (Slide rail) TU-1040E (Tuner unit)

Specifications

CRT	
AG pitch:	0.25 mm
phosphor:	EBU
CRT size:	37.1 cm (14-inch) diagonally
Visible picture size:	33.2 cm (13-inch) diagonally
Resolution:	800TV lines
Colour system:	PAL, NTSC, SECAM, NTSC$_{4.43}$*3
Aperture correction:	0 to +6dB
Frequency response:	LINE: 10.0 MHz (±3dB) *Y signal only RGB: 10.0 MHz (±3dB)
Synchronization:	AFC time constant 1.0mS
Normal scan:	7% over scan
Under scan:	5% under scan
Linearity:	H: less than 4% V: less than 4%
Convergence:	centre: 0.4mm (typical) peripheral: 0.5mm (typical)
Raster size stability:	H: 1.0% V: 1.5%
HV regulation:	3.5%
Colour temperature:	D65, D93, USER (3200K to 10000K)
Audio out:	0.8W (distortion: less than 5%)
Power Consumption:	90W (with SDI: 99W)
AC input range:	AC100 to 240V (50/60Hz)
Operation temperature:	0° to 35° C
Storage temperature:	-10° to 40° C
Operating humidity:	35 to 85% (no condensation)
Storage humidity:	0 to 90%
Pressure:	880 to 1060hPa
Dimensions:	346(W) × 340(H) × 431(D) mm (13⅝ × 13½ × 17 inches)
Mass:	16.7 kg (36 lb 13 oz)

Inputs / Outputs

LINE A/B*4	1.0Vp-p±6dB Loop-through BNC automatic 75Ω termination*5
LINE C*4	Y: 1.0Vp-p±6dB C: 0.3Vp-p±6dB Loop-through Mini DIN 4-pin automatic*5 75Ω termination
RGB / Component (selectable)*6	R/R-Y: 0.7Vp-p±6dB G: 0.7Vp-p±6dB Sync on G: 0.3Vp-p±6dB Y: 0.7Vp-p±6dB B/B-Y: 0.7Vp-p±6dB Loop-through BNC automatic 75Ω termination*5
External Sync	4Vp-p±6dB, negative Loop-through BNC automatic 75Ω termination*5

Regulation Compliance:

TÜV IEC-950, CE (EMC, LVD)
C-Tick (for PVM-14M4A)

*1 PVM-14M4A is an Australian version.
*2 Phase setup is for NTSC signals only.
*3 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*4 The Y/C input has priority over the Composite video input.
*5 75Ω termination is automatically set to OFF when connection is made to the OUT connector.
*6 Video amplitude 100/0/100 colour bars.

14" PVM-14M2E/14M2A*1 (PAL/NTSC/SECAM/NTSC$_{4.43}$)

Colour Video Monitor

•High resolution of 600TV lines with dark tint CRT for high contrast image reproduction •Accepts component (Y/R-Y/B-Y), RGB, Y/C and composite signals •Beam current feedback circuit for stability in the colour balance •Optional component serial digital interface kits BKM-101C (video)/102 (audio) available •Switchable aspect ratio (4:3 and 16:9) •Colour temperature D65, D93 or user preset (3200K to 10000K) selectable •On-screen display for adjustment/ operation •User preset function •Underscan, Blue Only and H/V delay mode available •Auto chroma/phase setup*2 •Accepts external sync •Auto/Manual degaussing •Mountable into an EIA standard rack with the optional MB-502B and SLR-102

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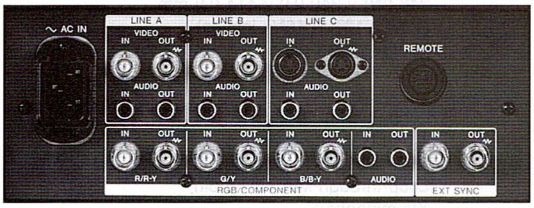

Supplied accessories:	20-pin remote cable Tally label AC cord AC plug holder Operation manual
Optional accessories:	BKM-101C (Component serial digital interface kit (video)) BKM-102 (Component serial digital interface kit (audio)) BKM-103 (Serial remote control kit for RS-422) MB-502B (Rack mounting bracket) SLR-102 (Slide rail) TU-1040E (Tuner unit)

Specifications

CRT	
AG pitch:	0.25 mm
phosphor:	P-22
CRT size:	37.1 cm (14-inch) diagonally
Visible picture size:	33.2 cm (13-inch) diagonally
Resolution:	600TV lines
Colour system:	PAL, NTSC, SECAM, NTSC$_{4.43}$*3
Aperture correction:	0 to +6dB
Frequency response:	LINE: 10.0 MHz (±3dB) *Y signal only RGB: 10.0 MHz (±3dB)
Synchronization:	AFC time constant 1.0mS
Normal scan:	7% over scan
Under scan:	5% under scan
Linearity:	H: less than 4% V: less than 4%
Convergence:	centre: 0.4 mm (typical) peripheral: 0.5 mm (typical)
Raster size stability:	H: 1.0% V: 1.5%
HV regulation:	3.5%
Colour temperature:	D65, D93, USER (3200K to 10000K)
Audio out:	0.8W (distortion: less than 5%)
Power Consumption:	90W (with SDI: 99W)
AC input range:	AC100 to 240V (50/60Hz)
Operation temperature:	0° to 35° C
Storage temperature:	-10° to 40° C
Operating humidity:	35 to 85% (no condensation)
Storage humidity:	0 to 90%
Pressure:	880 to 1060hPa
Dimensions:	346(W) × 340(H) × 431(D) mm (13⅝ × 13½ × 17 inches)
Mass:	16.7 kg (36 lb 13 oz)

Inputs / Outputs

LINE A/B*4

1.0Vp-p±6dB
Loop-through BNC automatic 75Ω termination*5

LINE C*4

Y: 1.0Vp-p±6dB
C: 0.3Vp-p±6dB
Loop-through Mini DIN 4-pin automatic 75Ω termination*5

RGB / Component (selectable)*6

R/R-Y: 0.7Vp-p±6dB
G: 0.7Vp-p±6dB
Sync on G: 0.3Vp-p±6dB
Y: 0.7Vp-p±6dB
B/B-Y: 0.7Vp-p±6dB
Loop-through BNC automatic 75Ω termination*5

External Sync

4Vp-p±6dB, negative
Loop-through BNC automatic 75Ω termination*5

Regulation Compliance:

TÜV IEC-950, CE (EMC, LVD)
C-Tick (for PVM-14M2A)

*1 PVM-14M2A is an Australian version.
*2 Phase setup is for NTSC signals only.
*3 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*4 The Y/C input has priority over the Composite video input.
*5 75Ω termination is automatically set to OFF when connection is made to the OUT connector.
*6 Video amplitude 100/0/100 colour bars.

14" PVM-14N6E/14N6A*1 (PAL/NTSC/SECAM/NTSC4.43)

Colour Video Monitor

•Resolution of 500TV lines •Beam current feedback circuit for stability in the colour balance •Accepts composite video, Y/C and RGB signals •Switchable aspect ratio (4:3 and 16:9) •On-screen menu for adjustment/operation •Input channel can be selected via REMOTE terminal (Phono) •Built-in speaker •One touch recall of last menu used (VOLUME, CONTRAST, BRIGHTNESS, CHROMA and PHASE) •Mountable into a 19-inch EIA standard rack with the optional MB-502 and SLR-102

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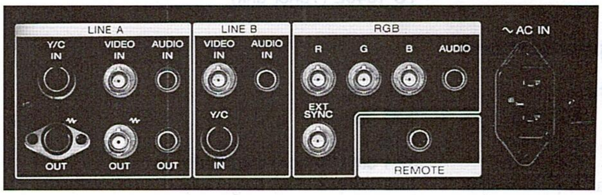

Optional accessories:	Rack mounting bracket kit MB-502B Slide rail kit (used with the MB-502B) SLR-102

Specifications

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system:	PAL/NTSC/SECAM/NTSC4.43*2
Picture tube:	37.1 cm(14-inch), visible picture size 33.2 cm(min.) (13-inch) measured diagonally, 90° deflection
Horizontal resolution:	500TV lines at centre
Audio power output:	Monaural, 0.8W with built-in speaker
Power requirements:	AC 100 to 240V, 50/60Hz
Power consumption:	80W
Dimensions:	346 (W) × 340 (H) × 414 (D) mm (13⅝ × 13⅜ × 16⁵⁄₁₆ inches)
Mass:	15 kg (33 lb 1 oz)
VIDEO	
LINE A*3	Loop-through BNC 1.0Vp-p, sync negative, Automatic 75Ω termination*4 Loop-through Mini DIN 4-pin Y(luminance): 1.0Vp-p, sync negative, Automatic 75Ω termination*4 C(chrominance): PAL: 0.3Vp-p, Automatic 75Ω termination*4 NTSC: 0.286Vp-p, Automatic 75Ω termination*4
LINE B*3	BNC 1.0Vp-p, sync negative, 75Ω Mini DIN 4-pin Y: 1.0Vp-p, sync negative, 75Ω C: PAL: 0.3Vp-p, sync negative, 75Ω NTSC: 0.286Vp-p, 75Ω
RGB/Sync	BNC R/G/B: 0.7Vp-p, 75Ω Sync on G: 0.3Vp-p, 75Ω Sync: 4Vp-p, 75Ω
AUDIO	
LINE A	Loop-through Phono -5dBu, high impedance
LINE B	Phono -5dBu, high impedance
RGB/Sync	Phono -5dBu, high impedance

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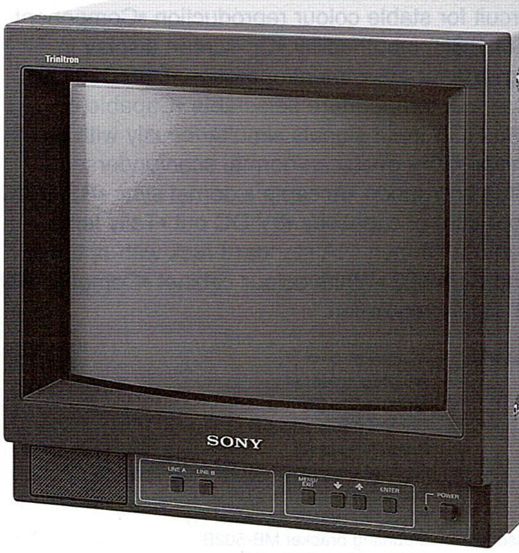
*1 PVM-14N6A is an Australian version.
*2 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*3 The Y/C input has priority over the Compsite video input.
*4 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

14" PVM-14N5E/14N5A*1 (PAL/NTSC/SECAM/NTSC$_{4.43}$)

Colour Video Monitor

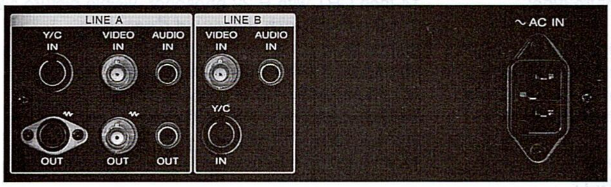
•Resolution of 500TV lines •Beam current feedback circuit for stability in the colour balance •Accepts composite video and Y/C signals •On-screen menu for adjustment/operation •Built-in speaker •One touch recall of last menu used (VOLUME, CONTRAST, BRIGHTNESS, CHROMA and PHASE) •Mountable into a 19-inch EIA standard rack with the optional MB-502 and SLR-102

Optional accessories:	Rack mounting bracket kit MB-502B Slide rail kit (used with the MB-502B) SLR-102



Specifications

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system:	PAL/NTSC/SECAM/NTSC$_{4.43}$*1
Picture tube:	37.1 cm(14-inch), visible picture size 33.2 cm(min.) (13-inch) measured diagonally, 90° deflection
Horizontal resolution:	500TV lines at centre
Audio power output:	Monaural, 0.8W with built-in speaker
Power requirements:	AC 100 to 240V, 50/60Hz
Power consumption:	80W
Dimensions:	346(W) × 340(H) × 414(D) mm ($13\frac{5}{8} \times 13\frac{3}{8} \times 16\frac{5}{16}$ inches)
Mass:	15 kg (33 lb 1 oz)
VIDEO	
LINE A*3	Loop-through BNC 1.0Vp-p, sync negative, Automatic 75Ω termination*4 Loop-through Mini DIN 4-pin Y(luminance): 1.0Vp-p, sync negative, Automatic 75Ω termination*4 C(chrominance): PAL: 0.3Vp-p, Automatic 75Ω termination*4 NTSC: 0.286Vp-p, Automatic 75Ω termination*4
LINE B*3	BNC 1.0Vp-p, sync negative, 75Ω Mini DIN 4-pin Y: 1.0Vp-p, sync negative, 75Ω C: PAL: 0.3Vp-p, sync negative, 75Ω NTSC: 0.286Vp-p, 75Ω
AUDIO	
LINE A	Loop-through Phono -5dBu, high impedance
LINE B	Phono -5dBu, high impedance



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*1 PVM-14N5A is an Australian version.

*2 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.

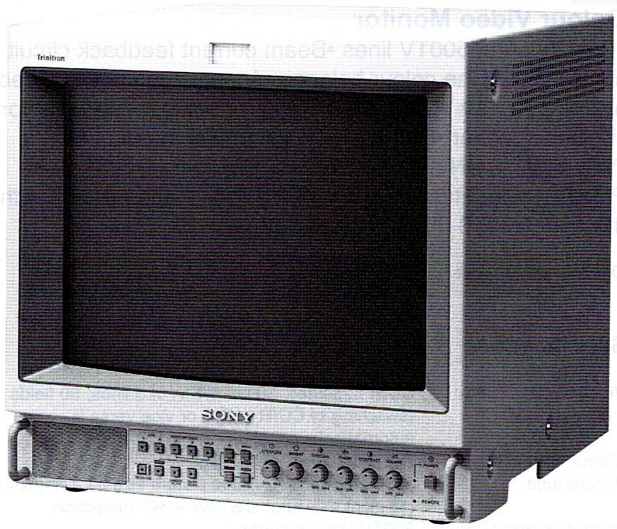
*3 The Y/C input has priority over the Compsite vdeio input.

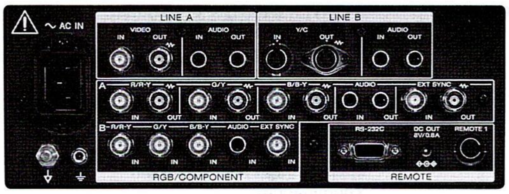
*4 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

14" PVM-14M2MDE/14M2MDA*1 (NTSC/PAL/SECAM/NTSC$_{4.43}$)

Colour Video Monitor for medical use

•High resolution of 600TV lines at centre •Beam current feedback circuit for stable colour reproduction •Component (Y/R-Y/B-Y or RGB) input facility •On-screen display in multiple language for adjustment/operation •D65/D56/D93/ User preset colour temperature selectable •Capable of observing two RGB input signals simultaneously with the RGB split mode •20% overscan/normal scan/underscan selection •Blue only mode •Accepts external sync •RS-232C serieal remote control capability •8V DC out •Tally lamp •Mountable into a 19-inch EIA standard rack with optional MB-502B and SLR-102 •White colour cabinet •Complies with EN-60601-1 safety regulation





Supplied accessories:	AC power cord (1) AC plug holder (1) Side covers (2) Control panel cover (1) Panel hinges (2) Remote control connector 8-pin mini DIN (1) Instructions for Use (1) RS-232C protocol manual (1)
Optional accessories:	Mounting bracket MB-502B Slide rail kits SLR-102

Specifications

Colour system:	PAL/NTSC (automatically selected)
Picture tube:	14-inch CRT with P-22 phosphor, visible picture size 331.6 mm (13-inch measured diagonally)
Horizontal resolution:	600TV lines at centre (Video inputs)
Audio power output:	Monaural, 0.8W with built-in speaker
Power requirements:	AC 100 to 240V 1.2 to 0.5A, 50/60Hz
Dimensions:	346(W) × 340(H) × 430.5(D) mm ($13^5/_8 \times 13^1/_2 \times 17$ inches)
Mass:	16.7 kg (37 lb 8 oz)
VIDEO	
LINE A	Loop-through BNC 1.0Vp-p, sync negative, Automatic 75Ω termination*2
LINE B	Loop-through Mini DIN 4-pin Y(luminance): 1.0Vp-p, sync negative, Automatic 75Ω termination*2 C(chrominance): PAL: 0.3Vp-p, Automatic 75Ω termination*2 NTSC: 0.286Vp-p, Automatic 75Ω termination*2
RGB/Component	A: Loop-through BNC R-Y/B-Y: 0.7Vp-p, Automatic 75Ω termination*2 Y/Sync on G: 1Vp-p, sync negative, Automatic 75Ω termination*2 R/G/B: 0.7Vp-p, Automatic 75Ω termination*2 Sync: 4Vp-p negative, Automatic 75Ω termination*2 B: BNC R-Y/B-Y: 0.7Vp-p, 75Ω Y/Sync on G: 1Vp-p, sync negative, 75Ω R/G/B: 0.7Vp-p, 75Ω Sync: 4Vp-p negative, 75Ω
AUDIO	
LINE A	Loop-through Phono -5dBu, high impedance
LINE B	Loop-through Phono -5dBu, high impedance
RGB/Component	A: Loop-through Phono -5dBu, high impedance B: Phono -5dBu, high impedance

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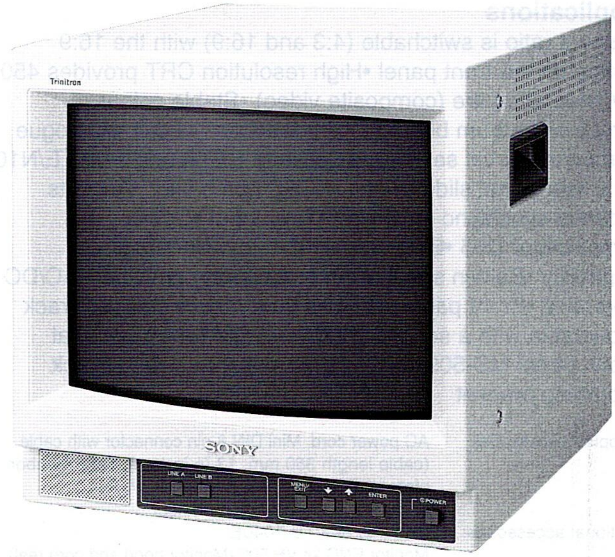
*1 PVM-14M2MDA is an Australian version.

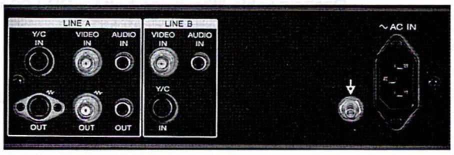
*2 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

14" PVM-14N5MDE (PAL/NTSC/SECAM/$\text{NTSC}_{4.43}$)

Colour Video Monitor for medical use

•High resolution of 500TV lines with Sony Trinitron® CRT •Stable colour reproduction with Beam Current Feedback Circuit •Loop-through Y/C and composite video inputs •Complies with world-wide EN 60 601-1, UL 2601-1 and CSA 601.1 safety regulations •Ground earth terminal for safety •Supplied with side covers •Accepts PAL, NTSC, SECAM and $\text{NTSC}_{4.43}$ signals •On-screen menu with a choice of five languages to facilitate monitor adjustment/setting •Built-in speaker for audio monitoring





Supplied accessories:	AC power cord (1) Side covers (2) Instructions for use (1)
Optional accessories:	Rack mounting bracket kit MB-502B Slide rail kit (used with the MB-502B) SLR-102

Specifications

General

System:	PAL/NTSC/SECAM/$\text{NTSC}_{4.43}$ automatically selected
Power requirements:	100 to 240V, 50/60Hz
Power consumption:	80W
Dimensions:	346 ($13\frac{5}{8}$) × 340 ($13\frac{3}{8}$) × 414 ($16\frac{5}{16}$) mm
Mass:	15 kg (33 lb 1 oz)
Operating temperature:	0 to 40°C (32 to 104°F)
Storage temperature:	-10 to 40°C (14 to 104°F)
Operating humidity:	30 to 85% (no condensation)

CRT Performance

CRT type:	370 mm (14-inch) Trinitron CRT with P-22 phosphors, visible picture size 332 mm (13-inch) (min.) measured diagonally
Resolution:	500TV lines
Colour temperature:	D65

Picture performance

Normal scan:	7% overscan
Linearity:	H: less than 8% V: less than 7%

Input performance

Video

LINE A*1	Composite:	Loop-through BNC 1Vp-p+3dB-6dB, sync negative automatic 75Ω termination*2
	Y/C*1:	Loop-through 4-pin mini DIN Y: 1Vp-p+3dB-6dB, sync negative automatic 75Ω termination*2 C: 0.3Vp-p (PAL) or 0.286Vp-p (NTSC), automatic 75Ω termination*2
LINE B*1	Composite:	BNC 1Vp-p+3dB-6dB, sync negative, 75Ω
	Y/C*1:	4-pin mini DIN Y: 1Vp-p+3dB-6dB, sync negative, 75Ω C: 0.3Vp-p (PAL) or 0.286Vp-p (NTSC), 75Ω
Frequency response:	6MHz (±3dB)	

Audio

LINE A	Loop-through phono -5dBu, high impedance
LINE B	Phono -5dBu, high impedance

0dBu=0.775 V rms

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*1 Y/C input has priority over composite input.
*2 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

9" PVM-9045QM (PAL/NTSC/SECAM/NTSC$_{4.43}$)

For picture evaluation in studio, ENG/EFP applications

•Aspect ratio is switchable (4:3 and 16:9) with the 16:9 button on the front panel •High resolution CRT provides 450 TV lines at centre (composite video) •Stable colour temperature from beam current feedback circuit •Analogue component level selectable between BETA and SMPTE/N10 by a rear panel slide switch •NTSC comb filter •Accepts external sync/sync on Green •Tally input •Colour temperature D65 •Blue only, H/V delay, Underscan capability •Built-in speaker and monitoring amplifier •AC/DC operation •Front panel degauss button •EIA standard rack mountable with a second PVM-9045QM (or an optional blank panel MB-509) by using an optional MB-507 rack mounting bracket

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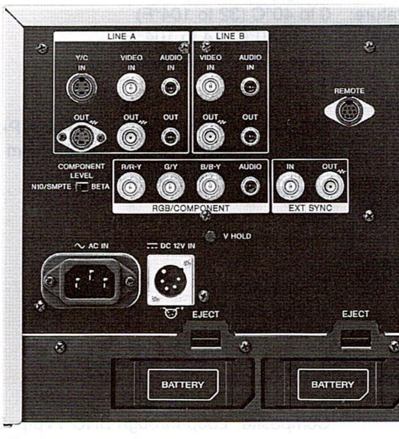
B

Supplied accessories:	AC power cord, Mini DIN 8-pin connector with cable (cable length 350 mm, 13 ⅞ inches), Tally number plates (12 pcs: No.1 to 5, A, B, C, P, R, white × 2 pcs), Operation manual
Optional accessories:	TV tuner unit TU-1040E Monitor ENG kit VF-505 (Monitor hood and cord reel) Rack mounting bracket MB-507 Blank panel MB-509 Battery adaptor DC-L10 Rechargeable lithium-ion battery BP-L60A Rechargeable lithium-ion battery BP-L90A Rechargeable battery pack NP -1B Rechargeable battery pack BP-90A Battery case (for BP-90A) DC-210 Battery charger (for four BP-L60A or BP-L90A) BC-L100CE Battery charger (for four NP-1Bs) BC-1WDCE Battery charger (for four NP-1Bs and four BP-90A) BC-410CE



Specifications

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system:	PAL/NTSC/SECAM/NTSC$_{4.43}$[1] (automatically selected)
Picture tube:	22cm (9-inch) HR Trinitron tube, visible picture size 19.7cm (8-inch) measured diagonally, 70° deflection
Horizontal resolution:	450TV lines at centre
Audio power output:	Monaural, 0.5W with built-in speaker
Power requirements:	AC: 100 to 240V 0.7 to 0.4A, 50/60Hz DC: 12V 3.7A
Power consumption:	AC: 43W DC: 40W
Dimensions:	217(W) × 217(H) × 352.5(D) mm (8⅝ × 8⅝ × 14 inches)
Mass:	8.2 kg (18 lb)
VIDEO	
LINE A	
Composite[2]:	Loop-through BNC 1Vp-p, sync negative, Automatic 75Ω termination[3]
Y/C[2]:	Loop-through Mini DIN 4-pin Y (luminance): 1Vp-p, sync negative, Automatic 75Ω termination[3] C (chrominance): PAL: 0.3Vp-p, Automatic 75Ω termination[3] NTSC: 0.286Vp-p, Automatic 75Ω termination[3]
LINE B	
Composite:	Loop-through BNC 1Vp-p, sync negative, Automatic 75Ω termination[3]
RGB/Component[4]	BNC
R/R-Y:	Non-composite: 0.7Vp-p, 75Ω
Sync on Green/G/Y:	Composite: 1Vp-p, sync negative, 75Ω Non-composite: 0.7Vp-p, 75Ω
B/B-Y:	Non-composite: 0.7Vp-p, 75Ω
External sync	Loop-through BNC 4Vp-p negative, Automatic 75Ω termination[3]
Tally	Mini DIN 8-pin
DC	XLR 4-pin
AUDIO	
LINE A	Loop-through Phono -5dBu, high impedance
LINE B	Loop-through Phono -5dBu, high impedance
RGB/Component	Phono -5dBu, high impedance

[1] The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
[2] The Y/C input has priority over the Composite video input.
[3] 75Ω termination is automatically set to OFF when connection is made to the OUT connector.
[4] Video amplitude 100/0/100 colour bars.

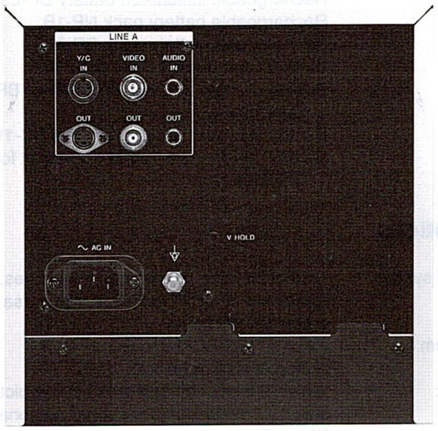
9" PVM-9043MD (PAL/NTSC/NTSC$_{4.43}$)

Colour Video Monitor for medical use

•High resolution of 450TV lines at centre •Beam current feedback circuit for stable colour reproduction •Colour temperature 6500K •19-inch EIA standard rack mountable with a second PVM-9043MD or the optional blank panel MB-509 by using an optional MB-507 rack mounting bracket •White colour cabinet •Complies with IEC-601-1 safety regulation

Supplied accessories:	Splash proof adapter Front panel cover Operation manual
Optional accessories:	Rack mounting bracket MB-507 Blank panel MB-509

Specifications



General	
Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system:	PAL/NTSC/NTSC$_{4.43}$*1 (automatically selected)
Picture tube:	22cm (9-inch) HR Trinitron tube, visible picture size 19.7cm (8-inch) measured diagonally, 70° deflection
Horizontal resolution:	450TV lines
Audio power output:	Monaural, 0.5W with built-in speaker
Power requirements:	AC 100 to 240V 0.7 to 0.4A, 50/60Hz
Power consumption:	45W
Dimensions:	217(W) × 217(H) × 352.5(D) mm (8⅝ ×8⅝ × 14 inches)
Mass:	7.8 kg (17 lb 3 oz)
VIDEO	
LINE A	Composite*2: Loop-through BNC, 1.0Vp-p, sync negative, Automatic 75Ω termination*3 Y/C*2: Loop-through Mini DIN 4-pin Y(luminance): 1.0Vp-p, sync negative, Automatic 75Ω termination*3 C(chrominance): PAL: 0.3Vp-p, Automatic 75Ω termination*3 NTSC: 0.286Vp-p, Automatic 75Ω termination*3
AUDIO	
LINE A	Loop-through Phono -5dBu, high impedance

*1 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*2 The Y/C input has priority over the Composite video input.
*3 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

9" PVM-9042QM (PAL/NTSC/SECAM/NTSC$_{4.43}$)

For multi-purpose use in various applications

•Aspect ratio is switchable (4:3 and 16:9) with the 16:9 button on the front panel •Stable colour temperature from beam current feedback circuit •Analogue component level selectable between BETA and SMPTE/N10 by a rear panel slide switch •NTSC comb filter •Accepts external sync/sync on Green •Tally input •Colour temperature D65 •Blue only, H/V delay, Underscan capability •Built-in speaker and monitoring amplifier •AC/DC operation •Front panel degauss button •EIA standard rack mountable with a second PVM-9042QM (or an optional blank panel MB-509) by using an optional MB-507 rack mounting bracket

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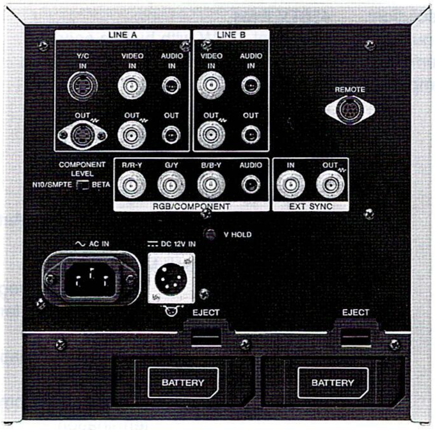
Supplied accessories:	AC power cord, Mini DIN 8-pin connector with cable (cable length 350mm, 13 7/8 inches), Tally number plates (12 pcs: No.1 to 5, A, B, C, P, R, white × 2 pcs), Operation manual
Optional accessories:	TV tuner unit TU-1040E Monitor ENG kit VF-505 (Monitor hood and cord reel) Rack mounting bracket MB-507 Blank panel MB-509 Battery adaptor DC-L10 Rechargeable lithium-ion battery BP-L60A Rechargeable lithium-ion battery BP-L90A Rechargeable battery pack NP-1B Rechargeable battery pack BP-90A Battery case (for BP-90A) DC-210 Battery charger (for four BP-L60A or BP-L90A) BC-L100CE Battery charger (for four NP-1Bs) BC-1WDCE Battery charger (for four NP-1Bs and four BP-90A) BC-410CE



Specifications

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system:	PAL/NTSC/SECAM/NTSC$_{4.43}$[1] (automatically selected)
Picture tube:	22cm (9-inch) Trinitron tube, visible picture size 19.7cm (8-inch) measured diagonally, 70° deflection
Horizontal resolution:	250TV lines at centre
Audio power output:	Monaural, 0.5W with built-in speaker
Power requirements:	AC: 100 to 240V 0.7 to 0.4A, 50/60Hz DC: 12V 3.7A
Power consumption:	AC: 43W DC: 40W
Dimensions:	217(W) × 217(H) × 352.5(D) mm (8⅝ × 8⅝ × 14 inches)
Mass:	8.2 kg (18 lb)

VIDEO	
LINE A	
Composite[2]:	Loop-through BNC 1Vp-p, sync negative, Automatic 75Ω termination[3]
Y/C[2]:	Loop-through Mini DIN 4-pin Y(luminance): 1Vp-p, sync negative, Automatic 75Ω termination[3] C(chrominance): PAL: 0.3Vp-p, Automatic 75Ω termination[3] NTSC: 0.286Vp-p, Automatic 75Ω termination[3]
LINE B	
Composite:	Loop-through BNC 1Vp-p, sync negative, Automatic 75Ω termination[3]
RGB/Component[4]	BNC
R/R-Y:	Non-composite: 0.7Vp-p, 75Ω
Sync on Green/G/Y:	Composite: 1Vp-p, sync negative, 75Ω Non-composite: 0.7Vp-p, 75Ω
B/B-Y:	Non-composite: 0.7Vp-p, 75Ω
External sync	Loop-through BNC 4Vp-p negative, Automatic 75Ω termination[3]
Tally	Mini DIN 8-pin
DC INPUT	XLR 4-pin
AUDIO	
LINE A	Loop-through Phono -5dBu, high impedance
LINE B	Loop-through Phono -5dBu, high impedance
RGB/Component	Phono -5dBu, high impedance

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[1] The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
[2] The Y/C input has priority over the Composite video input.
[3] 75Ω termination is automatically set to OFF when connection is made to the OUT connector.
[4] Video amplitude 100/0/100 colour bars.

9" PVM-9040ME (PAL/SECAM)

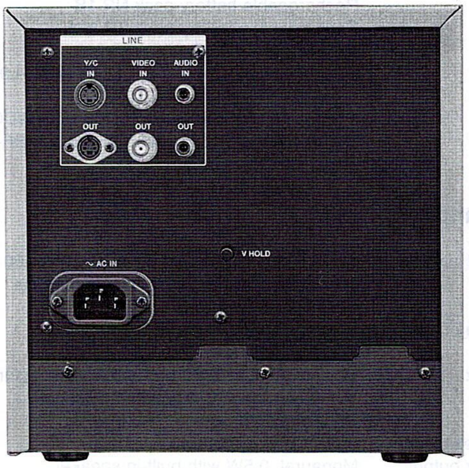
Basic monitoring device

•Employs a beam current feedback circuit for stability in the colour balance •Composite video or Y/C input with audio input •Built-in speaker •19-inch EIA standard rack mountable with a second PVM-9040ME or the optional blank panel MB-509 by using the optional MB-507 rack mounting bracket

Supplied accessories:	AC power cord, Operation manual
Optional accessories:	TV tuner unit TU-1040E Rack mounting bracket MB-507 Blank panel MB-509 Composite digital monitor interface DMIF-2000

Specifications

Video signal system:	CCIR 625 lines, 50 fields
Colour system:	PAL/SECAM (automatically selected)
Picture tube:	22cm (9-inch) Trinitron tube, visible picture size 19.7cm (8-inch) measured diagonally, 70° deflection
Horizontal resolution:	250TV lines at centre
Audio power output:	Monaural, 0.5W with built-in speaker
Power requirements:	AC: 100 to 240V 0.7 to 0.4A, 50/60Hz
Power consumption:	39W
Dimensions:	217(W) × 217(H) × 352.5(D) mm (8⅝ × 8⅝ × 14 inches)
Mass:	7.5 kg (16 lb 9.5oz)
VIDEO	
LINE	
Composite*1:	Loop-through BNC 1.0Vp-p, sync negative, Automatic 75Ω termination*2
Y/C*1:	Loop-through Mini DIN 4-pin Y(luminance): 1Vp-p, sync negative, Automatic 75Ω termination*2 C(chrominance): 0.3Vp-p, Automatic 75Ω termination*2
AUDIO	
LINE	Loop-through Phono -5dBu, high impedance



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*1 The Y/C input has priority over the Composite video input.
*2 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

6" PVM-6041QM (PAL/NTSC/SECAM/NTSC$_{4.43}$)

Suitable for picture confirmation in ENG/EFP application and multiple camera monitoring

•Employs a beam current feedback circuit for stability in the colour balance •Two input: Component (Y/R-Y/B-Y or RGB) input and Composite video input •Accepts external sync and sync on Green •Blue only, H/V delay, Underscan capability •AC/DC operation capability using one NP-1B battery pack or a BP-90A with DC-210 adapter •Wired remote control capability •Built-in speaker •Tally input •19-inch EIA standard rack mountable with another two units of PVM-6041QM or two optional blank panel MB-508 by using the optional MB-507 rack mounting bracket

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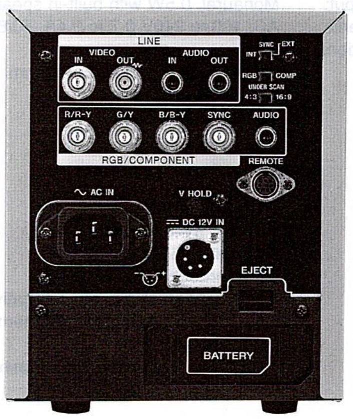


Supplied accessories:	AC power cord, Mini DIN 8-pin connector with cable (cable length 350mm, 137/8 inches), Operation manual
Optional accessories:	TV tuner unit TU-1040E Monitor ENG kit VF-504 (Monitor hood and cord reel) Rack mounting bracket MB-507 Blank panel MB-508 Battery adaptor DC-L10 Rechargeable lithium-ion battery BP-L60A Rechargeable lithium-ion battery BP-L90A Rechargeable battery pack NP-1B Rechargeable battery pack BP-90A Battery case (for BP-90A) DC-210 Battery charger (for four BP-L60A or BP-L90A) BC-L100CE Battery charger (for four NP-1Bs) BC-1WDCE Battery charger (for four NP-1Bs and four BP-90As) BC-410CE

Specifications

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system:	PAL/NTSC/SECAM/NTSC$_{4.43}$[*1] (automatically selected)
Picture tube:	14.7cm (6-inch) Trinitron tube, visible picture size 13cm (5-inch) measured diagonally, 70° deflection
Horizontal resolution:	250TV lines at centre
Audio power output:	Monaural, 0.5W with built-in speaker
Power requirements:	AC: 100 to 240V 0.7 to 0.4A, 50/60Hz, DC: 12V 3.2A
Power consumption:	AC: 40W DC: 40W
Dimensions:	146(W) × 173(H) × 352.5(D) mm (5¾ × 6⅞ × 14 inches)
Mass:	5.5 kg (12 lb 2 oz)
VIDEO	
LINE	Loop-through BNC 1.0Vp-p, sync negative, Automatic 75Ω termination[*2]
RGB/Component[*3]	BNC
R/R-Y:	Non-composite:0.7Vp-p, 75Ω
G/Sync on Green/Y:	Composite:1Vp-p, sync negative, 75Ω Non-composite:0.7Vp-p, 75Ω
B/B-Y:	Non-composite:0.7Vp-p, 75Ω
External sync	BNC 4Vp-p negative, 75Ω
AUDIO	
LINE	Loop-through Phono -5dBu, high impedance
RGB/Component	Phono -5dBu, high impedance

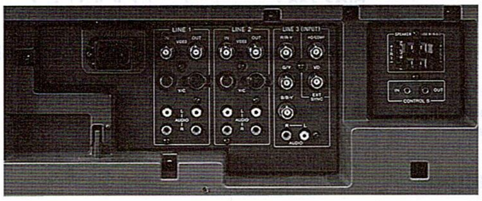
[*1] The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
[*2] 75Ω termination is automatically set to OFF when connection is made to the OUT connector.
[*3] RGB and Y/R-Y/B-Y input is switch selectable.

29" PVM-2950QM (PAL/NTSC/SECAM/NTSC$_{4.43}$)

Cubic Style Monitor

•Switchable aspect ratio(4:3 and 16:9) •A high resolution of 600TV lines •Beam current feedback circuit for stability in the colour balace •On-screen menu for adjustment/operation •Accepts Composite video, Y/C, Component(Y/R-Y/B-Y or RGB) signals •Supplied wireless remote control unit RM-854 controls all monitor functions

Supplied accessories:	AC power cord, AC plug holder, Remote controller RM-854, Battery for RM-854, Operation manual
Optional accessories:	Speakers: SS-X6A TV tuner unit TU-1040E



Specifications

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system:	PAL/NTSC/SECAM/NTSC$_{4.43}$[*1] (automatically selected)
Picture tube:	72.9cm(29-inch), Super Trinitron tube, visible picture size 67.5cm(27-inch)measured diagonally, 110° deflection
Horizontal resolution:	600TV lines
Audio power output:	7W+7W, 8 to 16Ω
Power requirements:	AC 220 to 240V, 50/60Hz
Power consumption:	165W (typical)
Dimensions:	687(W) × 538(H) × 529(D) mm (27⅛ × 21¼ × 20⅞ inches)
Mass:	52 kg(114 lb 10 oz)
VIDEO	
LINE 1/2	
Composite[*2]:	Loop-through BNC 1.0Vp-p, sync negative, Automatic 75Ω termination[*3]
Y/C[*2]:	Loop-through Mini DIN 4-pin Y(luminance):1Vp-p, sync negative, Automatic 75Ω termination[*3] C(chrominance): PAL:0.3Vp-p, Automatic 75Ω termination[*3] NTSC:0.286Vp-p, Automatic 75Ωtermination[*3]
LINE 3	
RGB/Component:	BNC
R/R-Y:	Non-composite: 0.7Vp-p, 75Ω
Sync on G/G/Y:	Composite: 1Vp-p, sync negative, 75Ω Non-composite: 0.7Vp-p, 75Ω
B/B-Y:	Non-composite: 0.7Vp-p, 75Ω
Sync:	Composite sync: BNC Analogue level: 0.5 to 5Vp-p, high impedance,positive/negative TTL level: positive/negative HD/VD separate: BNC Analogue level: 0.5 to 5Vp-p, high impedance,positive/negative TTL level: positive/negative
AUDIO	
LINE 1/2	Loop-through Phono (×2) -5dBu, high impedance
LINE 3	Phono (×2) -5dBu, high impedance

MUTING
DISPLAY
POWER
LINE 1
LINE 2
LINE 3
SELECT
MENU
VOL
CH
ENTER
CONTRAST
BRIGHTNESS
APERTURE
CHROMA
PHASE
SONY

RM-854

[*1] The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
[*2] Y/C input has priority over the Composite video input.
[*3] 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

20" PVM-20S1WE/20S1WA (PAL/NTSC/SECAM/NTSC4.43)

Colour Video Monitor with 16:9 aspect ratio

•16:9 aspect ratio CRT with dark panel for high contrast image reproduction •Accepts component (Y/R-Y/B-Y), RGB, Y/C and composite signals •Beam current feedback circuit for stability in the colour balance •Optional component serial digital interface kits BKM-101C (video) / 102 (audio) available •Switchable aspect ratio (4:3 and 16:9) •Colour temperature D65, D93 or user preset (3200K to 10000K) selectable •On-screen display for adjustment/operation •User preset function •Underscan, Blue Only and H/V delay mode available •Auto chroma/phase setup*1 •Accepts external sync •Digital 3-line comb filter •Auto/Manual degaussing •Mountable into an EIA standard rack with the optional SLR-103 slide rail kit

Supplied accessories:	20-pin remote cable Tally label AC power cord AC plug holder Blind panel kit for SLR-103A* Operation manual
Optional accessories:	BKM-101C (component serial digital interface kit (video)) BKM-102 (component serial digital interface kit (audio)) BKM-103 (serial remote control kit for RS-422A) SLR-103A (slide rail)

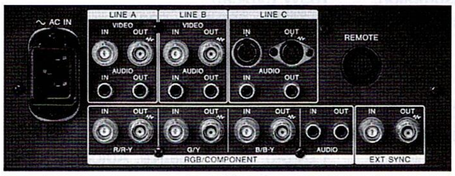
*Because the bezel protrudes from the rack when you mount the PVM-20S1WE, you cannot completely insert the SLR-103A.
The blind panel kit is supplied to cover the exposed part of the slide rail.

Specifications

CRT:	
AG pitch:	Variable pitch 0.65 to 0.75 mm
Phosphor:	P-22
Visible screen size:	46 cm (18inch) diagonally
Resolution:	300TV lines
Colour system:	PAL, NTSC, SECAM, NTSC$_{4.43}$*2
Aperture correction:	0 to +6dB
Frequency response:	
LINE:	6MHz(±3dB) *Y signal only
RGB:	6MHz(±3dB)
Synchronization:	AFC time constant 1.0mS
Normal scan:	7% over scan
Under scan:	5% under scan
Linearity:	
H:	less than 8% (typical)
V:	less than 7% (typical)
Convergence:	
Centre:	0.6mm (typical)
Peripheral:	1.2mm (typical)
Raster size stability:	
H:	1.0%
V:	1.5%
HV regulation:	4.0%
Colour temperature:	D65, D93, USER (3200K to 10000K)
Speaker out:	0.8W (distortion: less than 5%)
Power consumption:	100W (with SDI: 110W)
AC input range:	AC220 to 240V (50/60Hz)
Operation temperature:	0 to 35°C
Strage tenperature:	-10° to 40°C
Operation humidity:	35 to 85% (no condensation)
Strage humidity:	0 to 90%
Dimensions:	482(W) × 397(H) × 503(D) mm 19 × 15¾ × 19⅞ inches
Mass:	approx. 25 kg (55 lb 2oz) {including SDI : 26 kg (57 lb 5 oz)}

Inputs/Outputs

Line A/B:*3	1.0Vp-p±6dB Loop-through BNC automatic 75Ω termination*4
Line C:*3	
Y:	1.0Vp-p±6dB
C(NTSC):	0.286Vp-p±6dB Loop-through Mini DIN 4-pin automatic 75Ω termination*4



RGB/Component (selectable):*5	
R/R-Y:	0.7Vp-p±6dB
G:	0.7Vp-p±6dB
Sync on G:	0.3Vp-p ±6dB
Y:	1.0Vp-p±6dB
B/B-Y:	0.7Vp-p±6dB Loop-through BNC automatic 75Ω termination*4
External sync:	4Vp-p±6dB, negative Loop-through BNC automatic 75Ω termination*4

Regulation Compliance:

PVM-20A1WE	UL 1950, DHHS, FCC Class-A, CSA 22.2, No. 950, DNHW, IC Class-A, EN60950, EN55022 Class-B, EN50082-1, EN60555-2
PVM-20S1WA:	AS/NZS 3548, AS/NZS 4252.1

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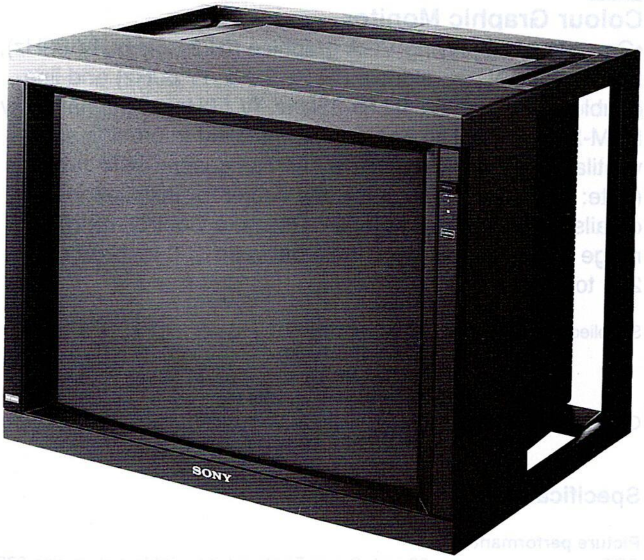
*1 Phase setup is for NTSC signals only.
*2 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*3 The Y/C input has priority over the Composite video input.
*4 75Ω termination is automatically set to OFF when connection is made to the OUT connector.
*5 Video amplitude 100/0/100 colour bars.

29" PGM-200R1E/200R1A

Colour Graphic Monitor

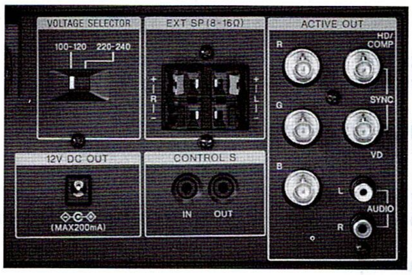
•Cubic style colour graphic monitor •Accepts VGA signals (fH 31.5kHz, fV 60Hz/70Hz) •The optional BKM-201SC Scan Converter Adaptor enables the monitor to serve as a multi-frequency monitor (capture range: fH 15.6kHz to 85kHz, fV 50Hz to 120Hz) •Active loop-through output •ID remote control •Wide range power supply (switchable between 100 to 120V and 220 to 240V AC)



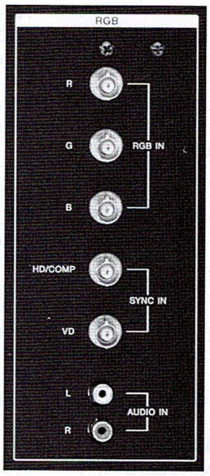
Supplied accessories: AC power cord (1)
AC plug holder (1)
Remote controller RM-921 with two AA (R6) batteries (1)
Ferrite core (2)
Operating instructions (1)
Optional accessories: Scan converter adaptor BKM-201SC
Cooling fan unit BKM-202FN
Speaker system SS-X7A
TV tuner TU-1040E

Specifications

Picture performance
CRT: 29-inch Super Trinitron tube, visible picture size 675mm (27-inch viewable area measured diagonally), AG pitch (variable) 0.70 - 0.85 mm, Anti-glare and anti-static
Resolution: 640 × 480 dots max.
Scanning frequency: fH 31.5kHz fV 60/70Hz, fH 31.25kHz fV 50Hz
Frequency response: 16MHz (–3dB)
Line pull range: Horizontal: ±500Hz
Vertical: -8Hz
Zooming: Within 5%
Colour temperature: 9300K (standard)/6500K switchable



Input/Output
Input R, G, B: BNC
0.714Vp-p / non-composite, 75Ω terminated
1Vp-p / composite, 75Ω terminated
HD/COMP, VD: BNC
H (or composite) sync, V sync
1 - 5Vp-p, high impedance
AUDIO (L, R): Phono
500mV rms, high impedance
Output R, G, B: BNC
0.714Vp-p / non-composite, 75Ω terminated
HD/COMP, VD: BNC
H (or composite) sync, V sync
5Vp-p, high impedance
AUDIO (L, R): Phono
Audio gain +/-1.0dB typical
Total harmonic distortion less than 1%
500mV rms
SP OUT: 8 to 16 ohms, 7W + 7W (at 8-ohm)
12V DC OUT (for BKM-202FN):
12V DC 200mA max.
Control S IN/OUT: mini jack, 5Vp-p



General
Power requirements: 220V to 240V AC selectable 50/60Hz
Power consumption: max. 183W
(with BKM-201SC: max. 208.5W)
Operating temperature: 0˚C to 35˚C (32˚F to 95˚F)
Dimensions: 687(W) × 538(H) × 520(D) mm
(27⅞ × 21¼ × 20½ inches)
Mass: Approx. 55 kg (121 lb 4 oz)

Regulation Compliance:
UL 1950, CSA 22.2 No.950, TÜV EN-60950 (CE LVD)
FCC Class A, IC Class A,
CE EN55022 Class-B / EN50082 - 1 / EN60555 - 2,
VCCI-1, DHHS, DNHW, PTB

29" PGM-200R2E

Colour Graphic Monitor

•Capable of displaying VGA graphics (fH 31.5kHz, fV 60Hz), line-doubled NTSC signals (fH 31.5kHz, fV 60Hz) and line-doubled PAL signals (fH 31.25kHz, fV 50Hz) •Optional Sony BKM-202FN Cooling Fan can be installed to provide extra ventilation for enclosed areas such as custom-built cabinets (note: Call your authorized Sony dealer for installation details) •Optional Sony RM-921 Remote Controlier •Wide range power supply switchable between 100 to 120V and 220 to 240V AC

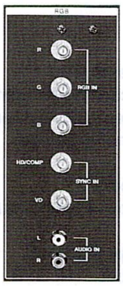
Trinitron
SONY

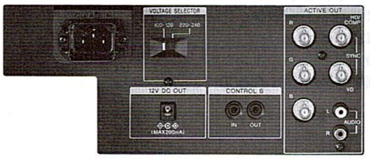
Supplied accessories:	AC power cord (1) AC plug holder (1) Ferrite core (2) Operating instructions (1)
Optional accessories:	RM-921 Remote Controller BKM-202FN Cooling Fan Unit

Specifications

Picture performance

CRT:	29-inch Super Trinitron tube, visible picture size 675 mm (27-inch viewable area, measured diagonally), AG pitch (variable) 0.70 to 0.85 mm, Aniti-glare and Anti-static
Resolution:	640 × 480 dots max.
Scanning frequency:	fH: 31.5kHz fV: 60HZ fH: 31.25kHz fV: 50Hz
Frequency response:	16MHz (-3dB)
Line pull range:	Horizontal: ±500Hz Vertical: -8Hz
Zooming:	Within 5%
Colour temperature:	9300K (standard)/6500K switchable





Input/Output

Input:	
R, G, B:	BNC 0.714Vp-p/non-composite, 75Ω terminated 1Vp-p/composite, 75Ω terminated
HD/COMP, VD:	BNC H (or composite) sync, V sync 5Vp-p, high impedance
Audio (L, R):	Phono 5dBu, high impedance
output:	
R, G, B:	BNC 0.714Vp-p/non-composite, 75Ω terminated
HD/COMP, VD:	BNC H (or composite) sync, V sync 5Vp-p, high impedance
Audio (L, R):	Phono Audio gain ±1.0dB typical Total harmonic distortion less than 1%, 5dBu
12V DC OUT (for BKM-202FN):	12V DC 200mA max.
Control S IN/OUT:	mini jack

General

Power requirements:	100V to 120V/220V to 240V AC selectable, 50/60Hz (Preset: 220 to 240V)
Power consumption:	max. 183W
Operating temperature:	0° to 35° (32°F to 95°F)
Dimensions:	687(W) × 538(H) × 520(D) mm ($27\tfrac{1}{8} \times 21\tfrac{1}{4} \times 20\tfrac{1}{2}$ inches)
Mass:	Approx. 51.5 kg (113 lb 8 oz)

Regulation Compliance:

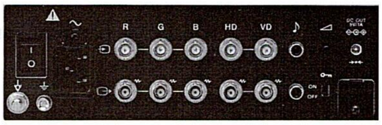
UL1950, CSA 22.2 No.950, EN60950, FCC Class-A, IC Class-A, EN55022 Class-B, EN50082-1, EN60555-2, VCCI, DHHS, DNHW, PTB

PGM-100P1MD

Colour Graphic Monitor for medical use

•High contrast Anti-Reflection Coated Trinitron CRT •Light output of 160nits •Multiscan capability: fH 30 to 65kHz, fV: 50 to 120 Hz, 640 × 480 to 1280 × 1024 dots •BNC input with loop-through output •Built-in speaker •DC 5V/1A output •World-wide medical safety approval for professional medical use •Control inhibit function prevents the inadvertent touching of control panel •Splash-proof cabinet and flush surface using a sheet-key •GCX mount or optional swivel stand installation capability •Power saving function

Trinitron
SONY



Supplied accessories:	AC power cord (1) Instruction manual
Optional accessories:	Monitor stand SU-556 Signal cable SMF-400 (D-sub 15-pin to 5 BNC cable)

Specifications

General

Scanning frequency:	VGA to SVGA Horizontal: 30 to 65kHz Vertical: 50 to 120Hz
Power requirements:	100 to 120V, 220 to 240V, 50/60Hz
Power consumption:	130W (max.), 7W (stand by)
Dimensions:	368(W) × 343(H) × 391(D) mm (14½ × 13⅝ × 15½ inches)
Mass:	Approx. 15 kg (33 lb 1 oz)

CRT performance

CRT type:	37cm (15-inch) Trinitron CRT with P-22 phosphors, visible picture size 35.4cm (14-inch) (min.) measured diagonally, AG pitch 0.25mm, 90° deflection
Resolution:	640 × 480 to 1280 × 1024 dots
Colour temperature:	9300K/5000K/USER

Input performance

R/G/B:	Loop-through BNC 0.7Vp-p, Automatic 75Ω termination
HD/VD:	Loop-through BNC TTL level, automatic 2.2kΩ termination

Audio performance

	Loop-through phono jack -5dBu, more than 47kΩ
Speaker out:	0.2W, monaural

14" KX-1410QM*1 (PAL/NTSC/SECAM/NTSC$_{4.43}$)

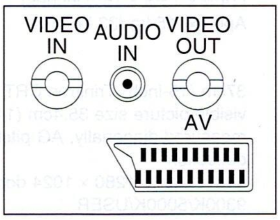
Colour Video Monitor

•Black Trinitron CRT •Equipped with composite and RGB video connectors •Built-in speaker and earphone jack for audio monitoring

Supplied accessories:	Remote commander RM-841, Operation manual
Optional accessories:	Speakers:SS-X6A TV tuner unit:TU-1040E

Specifications

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields
Colour system:	PAL/NTSC/SECAM/NTSC$_{4.43}$*2(automatically selected)
Picture tube:	36cm (14-inch) Black Trinitron tube, visible picture size 33.7cm (13-inch) measured diagonally, 90° deflection
Horizontal resolution:	250TV lines
Audio power output:	4W
Power requirements:	AC 220 to 240V, 50Hz
Power consumption:	45W
Dimensions:	359(W) × 345(H) × 409(D) mm (14¼ × 13⅝ × 16⅛ inches)
Mass:	10.5 kg (23 lb 2 oz)
VIDEO	
Composite:	Loop-through BNC, 1Vp-p, sync negative, Automatic 75Ω termination*3
RGB:	CENELEC 21-pin
AUDIO	Phono -5dBu, high impedance



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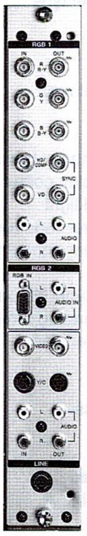
*1 This product is not available in some areas. For details, please consult your nearest Sony office.
*2 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*3 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

PFM-500A1WE

•16:9 aspect, 42-inch diagonal Plasma Display Panel •852 × 480 pixels resolution, 16.8 million colours •Accepts signals with horizontal frequency of 15.6 to 80 kHz with built-in high performance scan converter •Option slot •On-Screen Display in five languages •Carrying handles and unique retractable feet for easy handling capability •Self diagnosis function and detachable power supply block for easy maintenance access •Various remote control capabilities: supplied RM-921 Remote Commander, Control-S or RS-232C •7 W + 7 W built-in amplifier •Audio monitor out

Supplied accessories:	AC power cord (1) AC plug holder (1) Remote controller RM-921 AA (R6) battery (2) Connector cover (2) Foot support bracket (2) Ferrite core (2) Operation manual (1)
Optional accessories:	Speaker system SS-X500A Mounting bracket MB-514



Specifications

Picture performance

Panel:	
Resolution:	852 × 480 pixels
Pixel pitch:	1.08 × 1.08 mm
Active area (w/h):	920 × 518 mm 42-inch/1,056 mm (measured diagonally)
Driver:	8-bit RGB
Colours:	16.8 million simultaneously AC-type Plasma Display Panel with anti-reflection screen
Colour system:	NTSC, PAL (Composite, Y/C, YUV, RGB), HDTV (RGB, Y/PB/PR)
Capture range:	fH: 15.6 kHz to 80 kHz fV: 50 Hz to 120 Hz
Sampling rate:	12.5 to 40 MHz ofset phase max.
Output pixel clock:	30 MHz
Preset signals:	12 format

Inputs/Outputs

RGB 1:	BNC
RGB:	0.714 Vp-p, non-composite/1 Vp-p, composite, 75Ω automatic termination, loop-through
YUV:	0.7 Vp-p, non-composite (U/V)/1 Vp-p, composite (Y), 75Ω automatic termination, loop-through
HD/COMP, VD:	H (or composite) sync, V sync, 1 - 5 Vp-p, high impedance, loop-through
Audio (L/R):	Phono, 500 mV rms, high impedance, loop-through
RGB 2:	D-sub 15-pin
RGB:	0.714 Vp-p/non-composite, 1 Vp-p/composite
External sync:	H (or composite) sync, V sync, 1 - 5 Vp-p, high impedance
Audio (L/R):	Phono, 500 mV rms, high impedance
LINE:	
Composite:	BNC, 1 Vp-p, sync negative, 75 Ω automatic termination, loop-through
Y/C:	Mini DIN 4-pin connector
Y:	1 Vp-p, sync negative
C:	0.286 Vp-p (NTSC)m 0.3 Vp-p (PAL), 75 Ω automatic termination, loop-through
Audio (L/R):	Phono, 500 mV rms, high impedance, loop-through
Sync signal:	External H/V separate synd or composite sync, Sync on Green automatic selectable *Tri-level sync is available for HDTV
Audio output:	
Speakers terminal:	6 to 16 Ω, 7 W + 7 W (at 8 Ω)
Monitor out (L/R):	Phono, 500 mV rms at Volume max., attenuation 0 dB to -∞ (variable) Total harmonic distorsion less than 1 %
Remote:	
Control S IN/OUT:	Mini Jack, 5 Vp-p
RS-232C	Mini DIN 8-pin

General

Power requirements/ Power consumption:	220 - 240 V AC ±10 %, 50/60 Hz, 2.0 A, 360W
Operating temperature:	0 °C to 35 °C (32 °F to 95 °F)
Storage temperature:	-10 °C to 40 °C (14 °F to 104 °F)
Humidity:	0 % to 90 %, no condensation
Dimensions:	1036 × 636 × 152 mm (40 ¾ × 25 × 6 ¾ inches)
Mass:	Approx. 47 kg (Approx. 103 lb 10 oz)

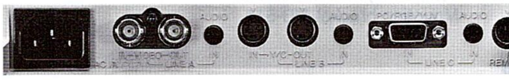
Regulation compliance

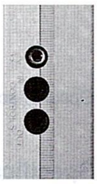
UL 1950, CSA 22.2 No. 950, TÜV EN-60950 (CE LVD) C-tick, FCC Class A, CE EN55022 Class-A/EN50082-2/EN60555-2, VCCI-A

10.4" LMD-1041

Multi-input LCD Monitor

•Lightweight and compact design •Accepts not only computer signals (fH: 15kHz to 36kHz), but also a wide variety of video signals •Remarkably beautiful colour reproduction with the brilliant full-colour, high resolution LCD panel •Underscan function available •IR remote control available for easy operation when using multiple monitors •Stereo speaker available •Kensington MicroSaver Security System®, wire can be attached as a security measure •On-screen menu for facilitated operation





Supplied accessories:	Stand Screws to secure stand (×2) AC power cord Remote control commander RM-LMD1041 Operating instructions

Specifications

General	
Video signal system	CCIR 625 lines, 50 fields*/EIA 525 lines, 60 fields
Colour system	PAL*/NTSC
Scanning frequency	VGA, Macintosh 13-inch mode (fH: 15 to 36kHz, fV: 45 to 73Hz)
Panel type	a-Si TFT Active Matrix LCD 10.4-inch (264 mm) diagonal, viewable area 10.4-inch (264 mm) (PAL, Computer)/ 10.2-inch (259.3 mm) (NTSC) diagonal
Pixel area	211 (H) × 158 mm (V) (8⅜ × 6¼ inches) 10.4-inch (264 mm) diagonal
Number of dots	640 RGB × 480 dots
Display colour	Analogue full colour
Backlight	Cold cathode fluorescent light
Power requirements	AC 100 to 240V, 50Hz/60Hz
Power consumption	28W max. (normal operation) 7W max. (standby)
Storage temperature	-20 to 60°C (-4 to 140°F)
Operating temperature	5 to 35°C (41 to 95°F)
Dimensions:	305(W) × 215.3(H) × 57.4(D) mm (12 × 8⁴⁄₉ × 2¼ inches) (projection not included)
Mass	Approx. 2 kg (4 lb 6 oz) (stand not included)
Video	
Line A	Loop-through BNC 1Vp-p±2dB sync negative, 75Ω
Line B	Loop-through Mini DIN 4-pin Y: 1Vp-p±2dB sync negative, 75Ω C: PAL 0.3Vp-p±2dB, 75Ω, NTSC 0.286Vp-p±2dB
Line C	HD D-sub 15-pin YUV: R-Y/B-Y: 0.7Vp-p Y:1.0Vp-p (sync 0.3V)
RGB:	R/B/G: 0.7Vp-p C sync: 1.0Vp-p
Computer	
Computer	HD D-sub 15-pin (Line C) RGB: 0.7Vp-p, 75Ω Sync: Composite sync: TTL level negative Separate sync: TTL level negative/positive Sync on G: 0.3Vp-p, negative
Audio	
Audio signal	Mini jack input: Audio input -5dBu, 47kΩ or more output: Headphone 16Ω or more speaker 0.5W + 0.5W

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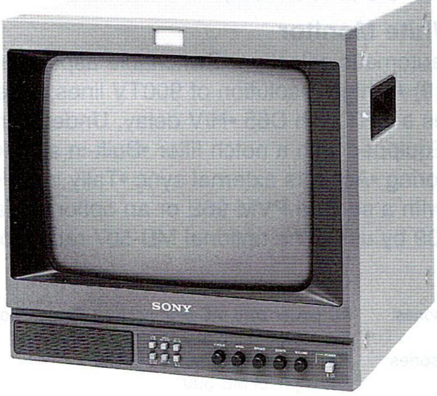
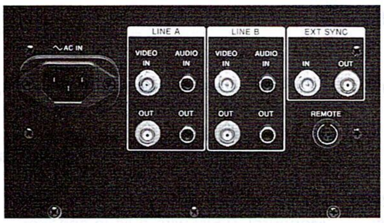
* Line reduction PAL signal.

14" PVM-146E (CCIR/EIA)

Black & White Monitor

•CCIR or EIA automatic selection •Switchable aspect ratio(4:3 and 16:9) •A high resolution of 1000TV lines at centre •Incorporates a CRT with D65 •H/V delay, Underscan capability •Equipped with a notch filter •Built-in speaker for audio monitoring •Accepts external sync •Tally input •Rack mountable with the optional mounting bracket MB-502B and slide rail kit SLR-102





Supplied accessories:	AC power cord, AC plug holders, Number plate (1 set), Remote connector 8-pin, Operation manual
Optional accessories:	Rack mounting bracket MB-502B Slide rail kit SLR-102

Specifications

General	
Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Picture tube:	34cm (14-inch) CRT, 32.1cm (13-inch) visible picture measured diagonally, 90° deflection
Horizontal resolution:	1000TV lines at centre
Audio power output:	Monaural, 0.5W with built-in speaker
Power requirements:	AC 100 to 240V 0.3 to 0.18A, 50/60Hz
Power consumption:	25W
Dimensions:	346(W) × 340(H) × 330(D)mm (13⅝ × 13½ × 13 inches)
Mass:	11 kg (24 lb 4 oz)
VIDEO	
Line A:	Loop-through BNC, 1Vp-p, sync negative, Automatic 75Ω termination*
Line B:	Loop-through BNC, 1Vp-p, sync negative, Automatic 75Ω termination*
External sync:	Loop-through BNC, 1 to 4Vp-p negative, Automatic 75Ω termination*
AUDIO	
Line A:	Loop-through Phono, -5dBu, high impedance
Line B:	Loop-through Phono, -5dBu, high impedance

* 75Ω termination is automatically set to OFF when connection is made to the OUT connector

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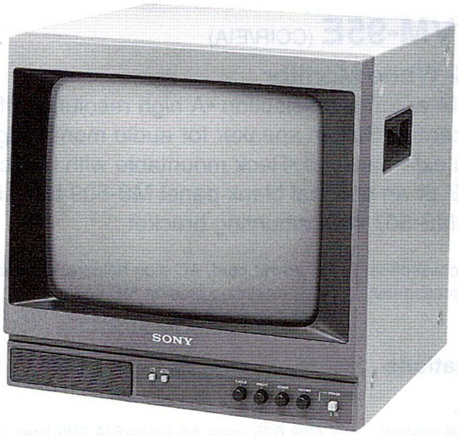
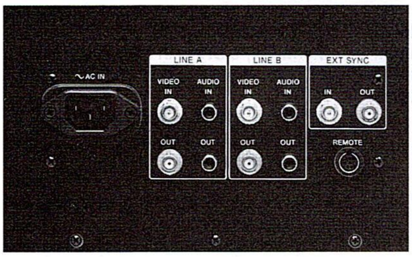
14" PVM-145E (CCIR/EIA)

Black & White Monitor

•CCIR or EIA automatic selection •A high resolution of 1000TV lines at centre •Built-in speaker for audio monitoring •Accepts external sync •Rack mountable with the optional mounting bracket MB-502B and slide rail kit SLR-102





Supplied accessories:	AC power cord, AC plug holders, Operation manual
Optional accessories:	Rack mounting bracket MB-502B Slide rail kit SLR-102

Specifications

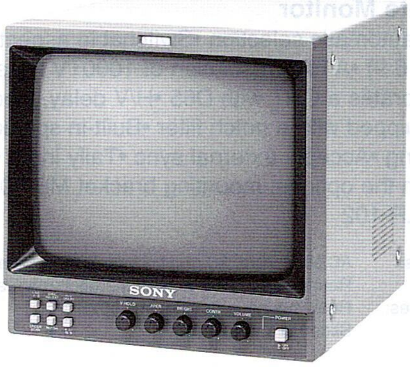
General	
Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Picture tube:	34cm (14-inch) CRT, 32.1cm (13-inch) visible picture measured diagonally, 90° deflection
Horizontal resolution:	1000TV lines at centre
Audio power output:	Monaural, 0.5W with built-in speaker
Power requirements:	AC 100 to 240V 0.3 to 0.18A, 50/60Hz
Power consumption:	25W
Dimensions:	346(W) × 340(H) × 330(D)mm (13⅝ × 13½ × 13 inches)
Mass:	11 kg (24 lb 4 oz)
VIDEO	
Line A:	Loop-through BNC, 1Vp-p, sync negative, Automatic 75Ω termination*
Line B:	Loop-through BNC, 1Vp-p, sync negative, Automatic 75Ω termination*
External sync:	Loop-through BNC, 1 to 4Vp-p negative, Automatic 75Ω termination*
AUDIO	
Line A:	Loop-through Phono, -5dBu, high impedance
Line B:	Loop-through Phono, -5dBu, high impedance

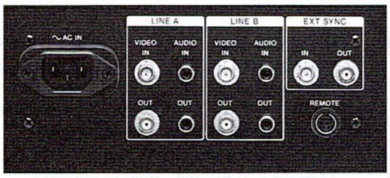
* 75Ω termination is automatically set to OFF when connection is made to the OUT connector

9" PVM-96E (CCIR/EIA)

Black & White Monitor

•CCIR/EIA automatic selection •Switchable aspect ratio (4:3 and 16:9) •A high resolution of 900TV lines at center •Incorporates a CRT with D65 •H/V delay, Underscan capability •Equipped with a notch filter •Built-in speaker for audio monitoring •Accepts external sync •Tally input •Rack mountable with a second PVM-96E or an optional blank panel MB-509 by using the optional MB-507 rack mounting bracket





Supplied accessories:	AC power cord, AC plug holders, Remote connector 8-pin, Operation manual
Optional accessories:	Rack mounting bracket MB-507 Blank panel MB-509

Specifications

General	
Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Picture tube:	23.0cm (9-inch) CRT, 21.7cm (9-inch) visible picture measured diagonally, 90° deflection
Horizontal resolution:	900TV lines at centre
Audio power output:	Monaural, 0.5W with built-in speaker
Power requirements:	AC 100 to 240V 0.3 to 0.18A, 50/60Hz
Power consumption:	23W
Dimensions:	217(W) × 218(H) × 250(D)mm (8⅝ × 8⅝ × 9⅞ inches)
Mass:	5.5kg (12 lb 2 oz)
VIDEO	
Line A:	Loop-through BNC 1Vp-p, sync negative, Automatic 75Ω termination*
Line B:	Loop-through BNC 1Vp-p, sync negative, Automatic 75Ω termination*
External sync:	Loop-through BNC, 1 to 4Vp-p negative, Automatic 75Ω termination*
AUDIO	
Line A:	Loop-through Phono, -5dBu, high impedance
Line B:	Loop-through Phono, -5dBu, high impedance

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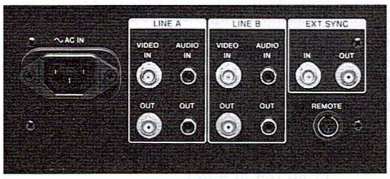
* 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

9" PVM-95E (CCIR/EIA)

Black & White Monitor

•CCIR/EIA automatic selection •A high resolution of 900TV lines at centre •Built-in speaker for audio monitoring •Accepts external sync •Rack mountable with a second PVM-95E or an optional blank panel MB-509 by using the optional MB-507 rack mounting bracket



Supplied accessories:	AC power cord, AC plug holders, Operation manual
Optional accessories:	Rack mounting bracket MB-507 Blank panel MB-509

Specifications

General	
Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Picture tube:	23.0cm (9-inch) CRT, 21.7cm (9-inch) visible picture measured diagonally, 90° deflection
Horizontal resolution:	900TV lines at centre
Audio power output:	Monaural, 0.5W with built-in speaker
Power requirements:	AC 100 to 240V 0.3 to 0.18A, 50/60Hz
Power consumption:	23W
Dimensions:	217(W) × 218(H) × 250(D)mm (8⅝ × 8⅝ × 9⅞ inches)
Mass:	5.5 kg (12 lb 2 oz)
VIDEO	
Line A:	Loop-through BNC, 1Vp-p, sync negative, Automatic 75Ω termination*
Line B:	Loop-through BNC, 1Vp-p, sync negative, Automatic 75Ω termination*
External sync:	Loop-through BNC, 1 to 4Vp-p negative, Automatic 75Ω termination*
AUDIO	
Line A:	Loop-through Phono, -5dBu, high impedance
Line B:	Loop-through Phono, -5dBu, high impedance

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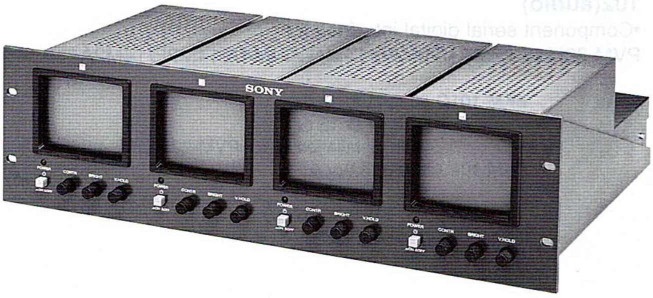
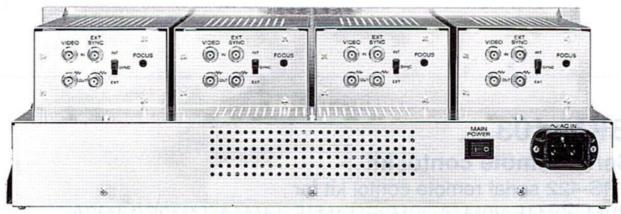
* 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

4" PVM-4B1E (CCIR/EIA)

Black & White Video Monitor

•Ideal for use for camera monitoring in video studio and surveillance systems with multiple camera installations •Compatible with CCIR and EIA systems (automatically selected) •High resolution of 500TV lines •Stable picture reproduction with the high voltage regulation circuit •Accepts an external sync signal •Loop-through video and sync terminals with automatic 75Ω termination •Can be mounted in a standard 19-inch rack •Individual power and individual controls available





Supplied accessories:	AC power cord (1) AC plug holder (1set) Operating instructions (1)

Specifications

General	
System:	CCIR 625 lines/50 fields, EIA 525 lines/60 fields (automatically selected)
Frequency response:	10MHz (-3dB)
Power requirements:	AC 100 to 240V, 50/60Hz
Power consumption:	59W
Dimensions:	483 (W) × 133 (H) × 356 (D)mm (19⅛ × 5¼ × 14⅛inches)
Mass:	11.7 kg (25lb 13oz)
Operating temperature:	0 to 35˚C (32 to 95˚F)
Operating humidity:	0 to 90%
CRT performance	
CRT type:	10cm (4-inch) CRT, visible picture size 9.4cm (3 3/4inch) (min.) measured diagonally, 50˚ deflection
Resolution:	500TV lines
Picture performance	
Normal scan:	7% overscan
Linearity:	H: less than 8%, V: less than 7%

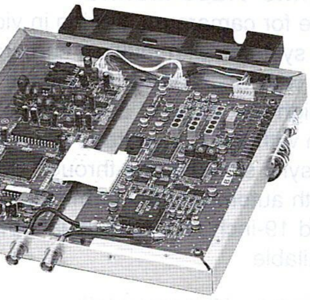
Input performance	
VIDEO:	Loop-through BNC 1Vp-p±6dB, sync negative, automatic 75Ω termination
EXT SYNC:	Loop-through BNC 0.5 to 4Vp-p, sync negative, automatic 75Ω termination
Regulation Compliance:	
	CE, LVD (TÜV)

BKM-101C/102

Component serial digital interface kit 101C (video)/102(audio)

- Component serial digital interface for PVM-20M4E/20M4A/20M2E/14M4E/14M4A/14M2E/14M2A

Mass:	BKM-101C:	820g (1 lb 13 oz) 870g (1 lb 15 oz) (with installation kit for PVM-2054QM)
	BKM-102:	130 g (4.6oz)



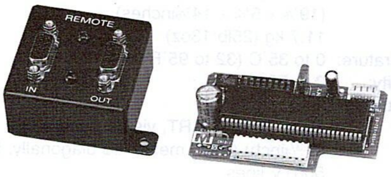
BKM-101C/102

BKM-103

Serial remote contol kit

- RS-422 serial remote contol kit for PVM-20M4E/20M4A/20M2E/14M4E/14M4A/14M2E/14M2A

Mass:	157 g (5.5 oz)



RM-921

Remote controller

- Remote controller for PGM-200R1E/200R1A/200R2E and PFM-500A1WE

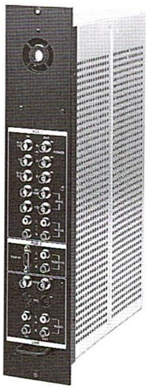
Dimensions:	43 (W) × 213 (H) × 25 (D) mm (1 ¾ × 8 ½ × 1 inches)
Mass:	125 g (4 oz) with batteries

BKM-201SC

Scan Converter Adaptor

- Scan converter adaptor for PGM-200R1E/200R1A
- Capable of converting signals with fH 15.6 to 85kHz into VGA

Format Conversion	
Capture range:	fH 15.6kHz to 85kHz, fV 50Hz to 120Hz
Sampling rate:	17.9 to 40 MHz offset phase max.
Output pixel clock:	25.2 to 38MHz max.
Line doubler:	Line doubled vertically for each field
Dimensions:	88.0(W) × 439.0(H) × 254.6(D) mm (3½ × 17⅜ × 10⅛ inches)
Mass:	Approx. 2.35 kg (5lb 3oz)

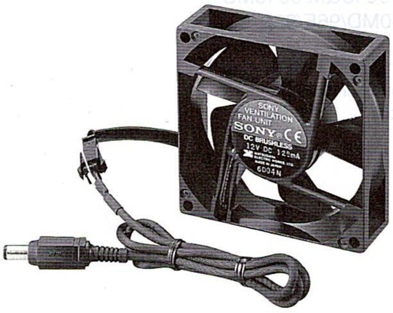


BKM-202FN

Cooling fan unit

- Cooling fan unit for PGM-200R1E/200R1A, PGM-200R2E
- Prevents heat build up inside the cabinet by powerfully ventilating the air out of the monitor
- DC 12V supplied from the monitor

Dimensions:	80(W) × 80(H) × 25(D) mm (3¼ × 3 ¼ × 1 inches)
Mass:	125 g (4 oz)



MB-502B

Mounting bracket

- Bracket for PVM-14M4E/14M4A/14M2E/14M2A/14M2MDE/14M2MDA/14N6E/14N6A/14N5E/14N5A/14N5MDE/146E/145E (used with SLR-102)

Dimensions:	483(W) × 355(H) × 302(D) mm (19⅛ × 14 × 12 inches)
Mass:	3.8 kg (8 lb 6 oz)

MB-507

Mounting bracket

- Bracket for PVM-9045QM/9043MD/9042QM/9040ME/9040MD/6041QM/96E/95E

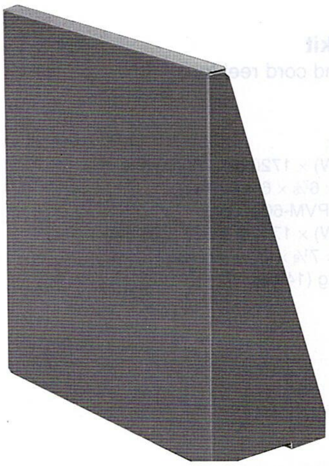
Dimensions:	482(W) × 221(H) × 395(D) mm (19 × 8¾ × 15⅝ inches)
Mass:	2.6 kg (5 lb 11 oz)

MB-508

Mounting attachment

- Blank panel for PVM-6041QM

Dimensions:	146(W) × 168.5(H) × 63(D) mm (5¾ × 6¾ × 2½ inches)
Mass:	0.2 kg (7 oz)

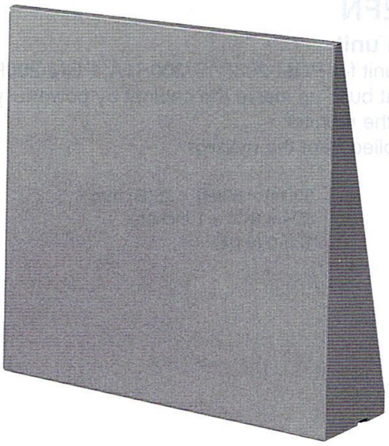


MB-509

Mounting attachment

•Blank panel for PVM-9045QM/9043MD/9042QM/9040ME/9040MD/96E/95E

Dimensions: 217(W) × 212.5(H) × 63(D) mm
(8⅝ × 8⅜ × 2½ inches)
Mass: 0.4 kg (14 oz)

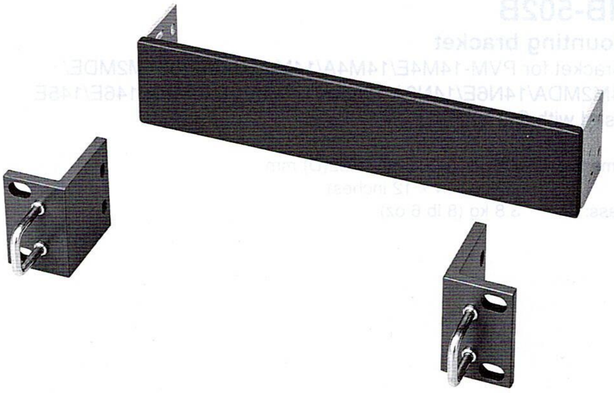


MB-510

Mounting bracket

•Bracket for DMIF-1000/2000

Dimensions (with 2 DMIF-1000/2000):
482(W) × 44(H) × 280(D) mm
(19 × 1¾ × 11⅛ inches)
Mass: 0.3 kg (10 oz)

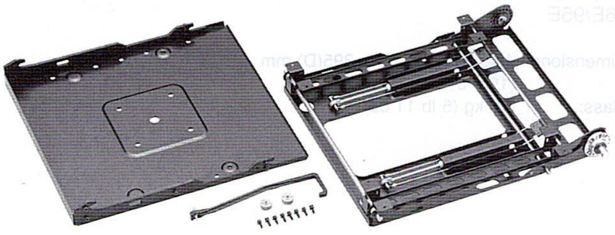


MB-514

Mounting bracket for PFM-500A1WE

•For wall-mounting installation •Monitors can be tilted 0 to 20 degrees downward from the wall •Separate parts for easy installation

Dimensions: Bracket for wall: 455(W) × 500(H) × 57(D) mm
(18$\frac{15}{16}$ × 19$\frac{11}{16}$ × 2¼ inches)
Bracket for monitor: 470(W) × 535(H) × 56.5(D) mm
(18⅝ × 21⅛ × 2¼ inches)
Mass: Bracket for wall: Approx. 5.2 kg (11 lb 7 oz)
Bracket for monitor: Approx. 5.8 kg (12 lb 13 oz)

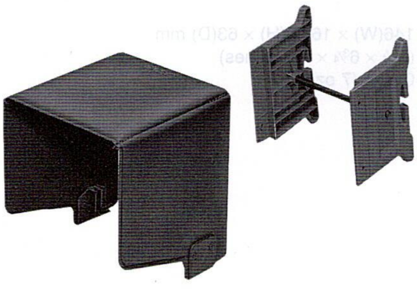


VF-504

Monitor ENG kit

•Monitor hood and cord reel for PVM-6041QM

Dimensions: Hood:
159(W) × 172(H) × 160(D) mm
(6⅜ × 6⅞ × 6⅜ inches)
(with PVM-6041QM):
159(W) × 178(H) × 567.5(D) mm
(6⅜ × 7⅛ × 22⅜ inches)
Mass: 0.4 kg (14 oz)

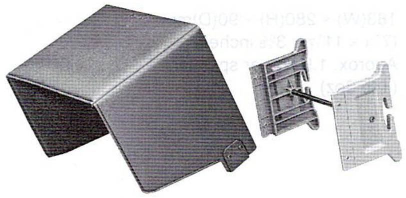


VF-505

Monitor ENG kit

- Monitor hood and cord reel for PVM-9045QM/9042QM

Dimensions: Hood:
230(W) × 215(H) × 200(D) mm
(9⅛ × 8½ × 7⅞ inches)
(with PVM-9045QM/9042QM):
230(W) × 222(H) × 607.5(D) mm
(9⅛ × 8¾ × 24 inches)
Mass: 0.5 kg (17 oz)



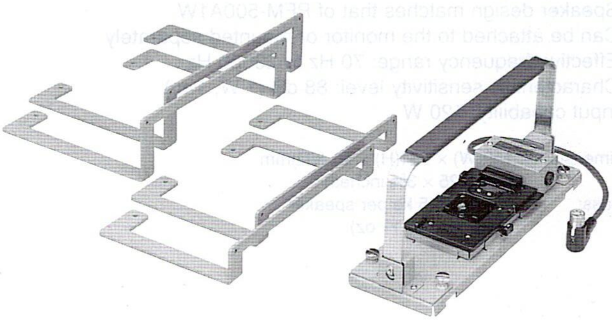
DC-L10

Battery adaptor

- Attaches a rechargeable Lithium-ion battery pack BP-L60A or BP-L90A to PVM-9045QM/9042QM/6041QM
- Retractable handle
- Easily detachable upper part of adaptor bracket

Specification

Operating time*:
BP-L60A Approx. 100 min. (typical)
BP-L60A Approx. 160 min. (typical)
*Actual operating times may vary.
Dimensions: 315(W) × 146(H) × 100(D) mm
(12½ × 5¾ × 4 inches)
Mass: With attachment frames for 9-inch monitor: 2.35 kg (5 lb 19 oz)
With attachment frames for 6-inch monitor: 2.15 kg (4 lb 28 oz)
DC output: DC 12 V, Right angle XLR 4-pin connector (female)
DC fuse: 5 A



DCC-XLR4

Car battery cord

- Car battery cord for PVM-9045QM/9042QM/6041QM

SU-556

Monitor stand

- Stand for PGM-100P1MD

Dimensions: 240 (W) × 57 (H) × 238 (D) mm
(9½ × 2¼ × 9⅜ inches)
Mass: Approx. 450 g (1 lb)

SS-X7A

Speaker system

- High quality stereo sound by two-way bass-reflex speaker system with cone-type woofer and tweeter

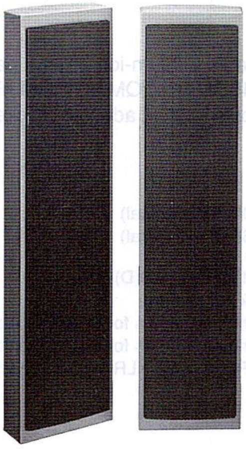
Dimensions: 183(W) × 280(H) × 90(D)mm
(7¼ × 11⅛ × 3⅝ inches)
Mass: Approx. 1.9 kg per speaker
(4 lb 3oz)

SSX-500A

Speaker system

- Speaker design matches that of PFM-500A1W
- Can be attached to the monitor or mounted separately
- Effective frequency range: 70 Hz to 20000 Hz
- Characteristic sensitivity level: 88 dB (1 W, 1 m)
- Input capability: 120 W

Dimensions: 159(W) × 634(H) × 90.3(D)mm
(2¼ × 25 × 3⅝ inches)
Mass: Approx. 3.5 kg per speaker
(Approx. 7 lb 11 oz)

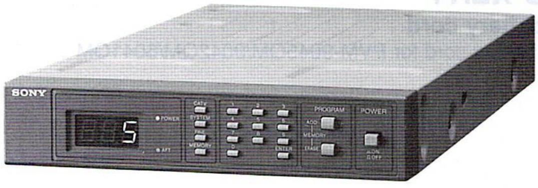


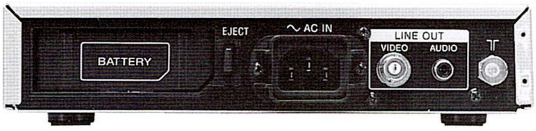
TU-1040E

TV tuner unit

- TV tuner unit compatible with various TV broadcast systems: B/G/H, L, I and D/K

Dimensions: 212 (W) × 49.3 (H) × 361 (D)mm
(8⅜ × 2 × 14¼inches)
Mass: 2.05 kg (4 lb 8 oz)

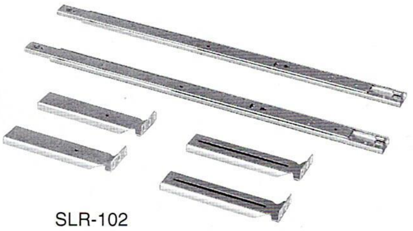




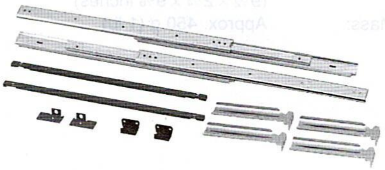
SLR-102/103A

Slide rail kit

- SLR-102 for PVM-14M4E/14M4A/14M2E/14M2A/14M2MDE/14M2MDA/14N6E/14N6A/14N5E/14N5A/146E/145E/136/137/135 (used with MB-502B)
- SLR-103A for PVM-20M4E/20M4A/20M2E/20M2MDE/20M2MDA/20N6E/20N6A/ 20N5E/20N5A



SLR-102



SLR-103A

VPH-G90E/G90M (PAL/NTSC/SECAM/$NTSC_{4.43}$)

•Multiscan capability: horizontal 15 kHz to 150 kHz, vertical 35 Hz to 150 Hz •Incorporates new, high resolution 9-inch electromagnetic focus CRTs •Incorporates a Universal Optical Coupling •Remarkable light output of 350 ANSI lm[*1] (150 kHz: 50 Hz, 6500 K), 1300 ANSI lm (peak white), 500 ANSI lm (all white) •High resolution of 700 TV lines (VIDEO), 1100 TV lines (HDTV) 2500 x 2000 pixels (RGB, measured at fH: 102 kHz, fV: 50 Hz) •Wide RGB bandwidth of 135 MHz •Wider range of registration adjustments for accurate registration •HACC lens for superior and stable picture performance •Video decoder circuit for enhanced video picture quality[*2] •Sony Digital Reality Creation •Responds to both analogue/digital RGB signals •Supplied wired/wireless remote control unit RM-PJ1001 controls all the projector functions such as set-up adjustments and operational functions •Various optional accessories available for system versatility •Desk top mounted projection, ceiling mounted projection, floor mounted projection and rear projection capabilities •Can be used with screens from 90 to 300 inches in size with simple adjustments

Supplied accessories: Remote control unit RM-PJ1001
Remote control cable 15 m (Stereo Mini Jack)
Adjustment plate
AA size battery (3)
AC power cord
Operating manual
Installation manual

Optional accessories: Interface board: IFB-12A/21/50/1000/G90E[*3]
Signal interface cables: SIC-10/20A/20C/22/M1/M5/M15/M25/M50
Signal interface switchers: PC-3000/1271M
Interface unit: IFU-1271M
Suspension support: PSS-90/10
Infrared remote control receiver: RM-PJ10
Signal adaptor: ADP-20
HD D-sub 15-pin to 5 BNC cable: SMF-400
HD D-sub 15-pin to HD D-sub 15-pin cable: SMF-401
Projection lens: VPHL-9270
100-inch flat screen[*4] : VPS-100FH
120-inch flat screen[*4] : VPS-120FH

Specifications

General

Video signal system: CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system: PAL/NTSC/SECAM/$NTSC_{4.43}$ automatically selected
Brightness: ANSI[*1] 350 lm (fH: 150kHz, fV: 50Hz, 6500 K)
ANSI 130 lm (fH: 15kHz, fV: 60Hz, 6500 K)
Peak white: 1300 lm
All white: 500 lm
Colour temperature: 6500K
RGB bandwidth: 135 MHz (-3dB)
Resolution: 700 TV lines (video), 1100 TV lines (HDTV)
2500 × 2000 pixels
(RGB, measured at fH: 102 kHz, fV: 50 Hz)
Scanning frequency: Horizontal: 15 to 150 kHz
Vertical: 38 to 150Hz
Test signals: Cross hair, Hatch reverse (9 × 9/17 × 17), Dot (9 × 9), Dot (17 × 17) & Hatch (5 × 5), H/H reverse, ME/ME reverse, All white, Window, Window and line colour bar, Pluge, Stair-step, Sub-pattern, Cross (9 × 9), Hatch (5 × 5), 10 IRE, 100 IRE
Power requirements: AC 220 to 240 V, 50/60 Hz
Power consumption: Max. 1000 W, Stand-by 14 W, Power saving mode 600 W
Heat dissipation: 3412.5 BTU
Mass: Approx. 110 kg (242 lb 8 oz)
Operating temperature: 0 to 40° C (14 to 104°F)
Operating humidity: 35 to 85%

Inputs/Outputs

Video[*3]:
Composite[*5]: Loop-through BNC
1Vp-p, ±2 dB sync negative,
75Ω automatic termination[*6]
Y IN: BNC, 1 Vp-p ±2 dB sync negative, 75 Ω terminated
C IN: BNC, Burst 0.286 Vp-p ±2 dB (NTSC), 75 Ω terminated or 0.3 Vp-p ±2 dB (PAL), 75 Ω terminated

VPH-G90E

VPH-G90M

Y/C IN[*5]: Loop-through Mini DIN 4-pin
Y (luminance): 1Vp-p ±2 dB sync negative,
75 Ω automatic termination[*6]
C (chrominance): 0.3Vp-p ±2 dB (PAL) 75 Ω automatic termination[*6],
Burst 0.286Vp-p ±2 dB (NTSC),
75Ω automatic termination[*6]

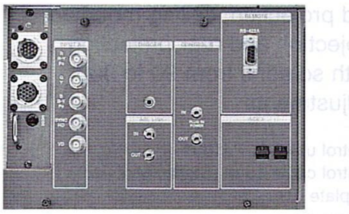
Input A:
Analogue RGB/
Component: BNC
R/R-Y/P_R: 0.7 Vp-p, ±2 dB positive, 75Ω terminated
G/Y: 0.7 Vp-p, ±2 dB positive, 75Ω terminated
G with Sync: 1 Vp-p, ±2 dB sync negative, 75Ω terminated
B/B-Y/P_B: 0.7 Vp-p, ±2 dB positive, 75Ω terminated
SYNC/HD: Composite sync:
0.6~8 Vp-p, high impedance positive/negative
Horizontal sync:
0.6~8 Vp-p, high impedance positive/negative
VD: Vertical sync:
0.6~8 Vp-p, high impedance positive/negative
HDVS (Y/P_B/P_R): BNC
Y: 1 Vp-p ±2 dB, 75 Ω terminated
P_B/P_R: Tri-sync: ±0.3 Vp-p, bi-sync: 0.3 Vp-p, ±0.35 Vp-p ±2 dB, 75Ω
HDVS (GBR): BNC
G with sync: 1 Vp-p ±2 dB, 75Ω terminated
Tri-sync: ±0.3 Vp-p, bi-sync: 0.3 Vp-p
B/R: 0.7 Vp-p ±2 dB, 75 Ω terminated
INPUT B:
Open slot for optional IFB boards
Control S
/PLUG IN POWER:
IN: Stereo Mini Jack
5 Vp-p, Plug-in power DC 5 V, Max. output: 60 mA
OUT: 5 Vp-p
REMOTE:
RS-232C/RS-422A: IN: D-sub 9-pin (Female)
PJ COM (RS-485): IN: D-sub 9-pin (Female)
OUT: D-sub 9-pin (Female)
LINK:
IN: Stereo Mini Jack
OUT: Stereo Mini Jack
TRIG: Mini Jack
Power ON: DC 12V, Output impedance 4.7 kΩ
Power OFF: 0 V

*1 ANSI is a measuring method of American National Standards Institute ANSI IT7.215.
*2 Applicable for VPH-G90M only.
*3 VPH-G90E requires optional IFB-G90E video input board. IFB-G90E is applicable for VPH-G90E only.
*4 Some items are not available in some areas. For details, please consult your nearest Sony office.
*5 The Y/C input has priority over the Video input.
*6 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

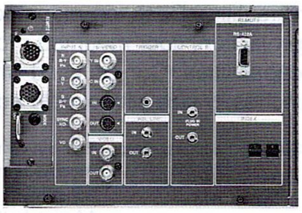
VPH-G70QM/G70QMG

(PAL/NTSC/SECAM/NTSC$_{4.43}$/PAL-M)

•Multiscan capability: horizontal 15kHz to 110kHz, vertical 38Hz to 150Hz •Incorporates newly developed 8-inch electromagnetic focus CRTs •Incorporates an universal optical coupling •Remarkable light output of ANSI[*1] lumen (colour temperature: 6500°K): 240lm (fH: 110kHz, fV: 60Hz)/ 200lm (fH: 15kHz, fV: 60Hz), Peak white: 1200lm •High resolution of 700TV lines (video)/1100 TV lines (HDTV[*2])/ 1700 × 1200 pixels (RGB in at fH: 74kHz, fV: 60Hz) •Wide RGB bandwidth of 120MHz •New hybrid HACC lens for superb, stable picture performance •Precise registration with the Key/Pin balance mode and 25-point zone adjustment •Input memory and Video memory available for facilitated set up •Independent brightness and colour uniformity adjustments •Incorporates the Picture orbiting function •Simplified operation for multi-projection applications such as ABL link and Index operation functions •Optional internal line-doubler board available •Video decoder circuit for enhance video picture quality •Various optional accessories available for system versatility •Desk top mounted projection, ceiling mounted projection, floor mounted projection and rear projection capabilities •Can be used with screens from 60 to 300 inches in size with simple adjustments



VPH-G70QMG



VPH-G70QM

Supplied accessories:	Remote commander RM-PJ1000 Remote commander cable (15m) Adjusting plate AA size (R6) battery × 3 AC power cord Operation manual Installation manual
Optional accessories:	Interface board IFB-12/20/21/1000/1301/G70QMG[*3*4] Signal interface cable SIC-10/20A/20C/21/22 Multi-cable[*3] CCQ-BRS cable (14-14pin: 2/5/10/25/50m) SIC-M cable (14-14pin: 1/5/15/25/50m) Signal interface switcher PC-1271M Extension board EXB-DS10 (internal line-doubler board) Interface unit IFU-1271M[*3] Suspension support PSS-70 Suspension support PSS-10 Remote commander RM-PJM800 Infrared remote control receiver RM-PJ10 Mouse receiver RM-PJ21 Signal adapter ADP-10 (HD D-sub 15-pin to D-sub 9-pin for SIC cable) Signal adapter ADP-20 (Macintosh® to VGA) Monitor cable SMF-400 (HD D-sub 15-pin to 5BNC) Monitor cable SMF-401 (HD D-sub 15-pin to HD D-sub 15-pin) 9-pin remote cable RCC-5G/10G/30G (D-sub 9-pin to D-sub 9-pin for RS-422A) 100-inch flat screen VPS-100FH 120-inch flat screen VPS-120FH

Specifications

Optical

Projection system:	3 picture tubes, 3 lenses, direct projection system
Picture tube:	8-inch (phosphor size 6-inch) high luminance, electromagnetic focus tubes
Projection lens:	Double focus, F1.1/135mm
Screen coverage:	60 to 300-inch measured diagonally, factory preset to 120-inch
Light output:	ANSI[*1]: 240lm (fH: 110kHz, fV: 50Hz, 6500K) 200lm (fH: 15kHz, fV: 60Hz, 6500K) 1200lm (peak white) 320lm (all white)
Throwing distance:	60-inch 1668mm (5 ft $5^{21}/_{32}$ inches) 70-inch 1921mm (6 ft 3 $^{5}/_{8}$ inches) 100-inch 2689mm (8 ft $9^{7}/_{8}$ inches) 120-inch 3200mm (10 ft $5^{31}/_{32}$ inches) 150-inch 3972mm (13 ft $^{3}/_{8}$ inches) 200-inch 5254mm (17 ft $2^{27}/_{32}$ inches) 250-inch 6539mm (21 ft $5^{7}/_{16}$ inches) 300-inch 7831mm (25 ft $8^{5}/_{16}$ inches)

Signals

Colour system:	PAL, NTSC, SECAM, NTSC$_{4.43}$, PAL-M
Resolution:	700TV lines (video) 1100TV lines (HDTV) 1700 × 1200 pixels (RGB, measured at fH: 74kHz, fV: 60Hz)
Scanning frequency:	Horizontal: 15 to 110kHz Vertical: 38 to 150Hz
RGB bandwidth:	120MHz-3dB

General

Power requirements:	AC 220 to 240V, 50/60Hz
Power consumption:	720W, Standby: 7W
Heat dissipation:	2593.4BTU
Operating temperature:	0 to 40°C (32 to 104°F)
Operating humidity:	35 to 85%
Storage temperature:	-20 to 60°C (-4 to 140°F)
Storage humidity:	10 to 90%
Dimensions:	695(W) × 358(H) × 948(D) mm ($27\frac{3}{8} \times 14\frac{1}{8} \times 37\frac{5}{16}$ inches)
Mass:	Approx. 83 kg (183 lb)

Inputs/Outputs

Video[*5]:	
Composite:	Loop-through BNC 1Vp-p±2dB sync negative, 75Ω
Y IN:	1Vp-p±2dB sync negative, 75Ω
C IN:	Burst 0.286Vp-p±2dB (NTSC), 75Ω or 0.3Vp-p±2dB (PAL), 75Ω
Y/C IN:	Loop-through Mini DIN 4-pin
Y:	1Vp-p±2dB sync negative, 75Ω
C:	Burst 0.286Vp-p±2dB (NTSC), 75Ω or 0.3Vp-p±2dB (PAL), 75Ω
Input A:	BNC × 5
Analog RGB/Component:	
R/R-Y:	0.7Vp-p±2dB positive, 75Ω
G:	0.7Vp-p±2dB positive, 75Ω,
G with sync/Y:	1Vp-p±2dB sync negative, 75Ω
B/B-Y:	0.7Vp-p±2dB positive, 75Ω
Sync/HD:	Composite sync: 0.6 to 8Vp-p, high impedance, positive/negative Horizontal sync: 0.6 to 8Vp-p, high impedance, positive/negative
VD: Vertical sync:	0.6 to 8Vp-p, high impedance, positive/negative
HDTV[*2] (Y/P$_B$/P$_R$):	
Y:	1Vp-p±2dB, 75Ω Tri-level sync: ±0.3Vp-p, Bi-level sync: 0.3Vp-p
P$_B$/P$_R$:	±0.35Vp-p±2dB, 75Ω
HDTV[*2] (GBR):	
G with sync:	1Vp-p±2dB, 75Ω Tri-level sync: ±0.3Vp-p, Bi-level sync: 0.3Vp-p
B/R:	0.7Vp-p±2dB, 75Ω
Input B: Supplied with an IFB-40:	14-pin multi connector (input: male, output: female)
CONTROL S	Stereo mini-jack
IN/PLUG IN POWER:	5Vp-p, plug in power DC5V, maximum output 60mA
OUT:	Stereo mini-jack 5Vp-p
REMOTE RS-422A:	D-sub 9-pin (female)
ABL Link IN:	Mini-jack
OUT:	Mini-jack
TRIG:	Mini-jack Power On: DC5V, output impedance 4.7kΩ Power Off: 0V

Safety regulations	EN60 950 (TÜV), CE, PTB, C-Tick Mark

[*1] ANSI is a measuring method of American National Standards Institute ANSI IT 7.215.
[*2] HDTV: 1125/60 interlaced HDTV studio standard system.
[*3] Some items are not available in some areas. For further details, please consult your nearest Sony office.
[*4] Applicable for VPH-Q70QMG only.
[*5] Applicable for VPH-Q70QM only.

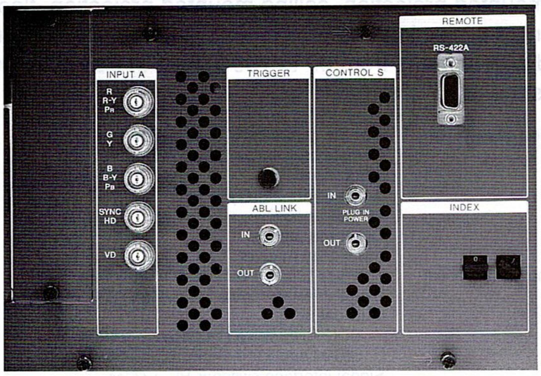
VPH-G70VRM (PAL/NTSC/SECAM/NTSC$_{4.43}$/PAL-M)

•Designed specifically for use in Virtual Reality and Simulation applications •Deep focussing area, high resolution lenses, and extended geometry for use with curved and dome-style screens •Multiscan capability: horizontal 15 kHz to 110 kHz, vertical 38Hz to 150 Hz •Accepts composite and S Video signals when an appropriate optional interface board is installed •Incorporates newly developed 8-inch electromagnetic focus CRTs •Incorporates a universal optical coupling •High resolution of 700 TV lines (video)/1100 TV lines (HDTV[*1])/1700 × 1200 pixels (RGB measured at fH: 74 kHz, fV: 60 Hz) •Wide RGB bandwidth of 120 MHz •New hybrid HACC lens for superb, stable picture performance •Precise registration with the Key/Pin balance mode and 25-point zone adjustment •Input memory and Video memory available for facilitated set up •Independent brightness and colour uniformity adjustments •Incorporates the picture orbiting function •Simplified operation for multi-projection applications such as ABL link and Index operation functions •Optional internal line-doubler board available •Video decoder circuit for enhanced video picture quality •Various optional accessories available for system versatility •Can be used with screens from 60 to 300 inches in size with simple adjustments •Black cabinet suitable for Virtual Reality and Simulation installations

Supplied accessories:	Remote commander RM-PJ1000
	Remote commander cable (15 m)
	Adjustment plate
	AA size (R6) battery (3)
	AC power cord
	Operation manual
	Installation manual
Optional accessories:	Interface board IFB-12/20/21/40/50/1000[*2]
	Signal interface cable SIC-10/20A/20B/20C/21/22[*2]
	CCQ-BRS cable (14-14pin: 2/5/10/25/50 m)
	SIC-M cable (14-14pin: 1/5/15/25/50 m)
	Signal interface switcher PC-1271M
	Extension board EXB-DS10 (internal line-doubler board)
	Interface unit IFU-1271M
	Suspension support PSS-70
	Suspension support PSS-10
	Remote commander RM-PJM800
	Infrared remote control receiver RM-PJ10
	Mouse receiver RM-PJ21
	Signal adapter ADP-10 (HD D-sub 15-pin to D-sub 9-pin)
	Signal adapter ADP-20 (Macintosh® to VGA®)
	Monitor cable SMF-400 (HD D-sub 15-pin to 5 BNC)
	Monitor cable SMF-401 (HD D-sub 15-pin to HD D-sub 15-pin)
	9-pin remote cable RCC-5G/10G/30G (D-sub 9-pin to D-sub 9-pin for RS-422A)
	100-inch flat screen VPS-100FH
	120-inch flat screen VPS-120FH[*2]

Specifications

Optical	
Projection system:	3 picture tubes, 3 lenses, direct projection system
Picture tube:	8-inch (phosphor size 6-inch) high luminance, optical doubled, electromagnetic focus tubes
Projection lens:	Double focus, F1.2/135 mm (colour purity improved: C element of Red/Green)
Screen coverage[*3]:	60 to 300 inches (viewable area, measured diagonally) (factory preset to 120 inches)
Acceptable screen radius:	Flat to 2500 mm radius
Acceptable throw angle:	-2° to +30°
Light output:	ANSI[*4]: 200 lm (fH: 110 kHz, fV: 60 Hz, 6500K) ANSI[*4]: 170 lm (fH: 15 kHz, fV: 60 Hz, 6500K) Peak white: 1000 lm, All white: 290 lm
Throwing distance:	60-inch 1668 mm (5 ft 5 21/32 inches) 70-inch 1921 mm (6 ft 3 5/8 inches) 100-inch 2689 mm (8 ft 9 7/8 inches) 120-inch 3200 mm (10 ft 5 31/32 inches) 150-inch 3972 mm (13 ft 3/8 inches) 200-inch 5254 mm (17 ft 2 27/32 inches) 250-inch 6539 mm (21 ft 5 7/16 inches) 300-inch 7831 mm (25 ft 8 5/16 inches)
Signals	
Colour system:	PAL, NTSC, SECAM, NTSC$_{4.43}$, PAL-M (automatically selected)
Resolution:	700 TV lines (video), 1100 TV lines (HDTV) 1700 × 1200 pixels (RGB, measured at fH: 74 kHz, fV: 60 Hz)



Scanning frequency:	Horizontal: 15 to 110 kHz Vertical: 38 to 150 Hz
RGB bandwidth:	120 MHz (-3 dB)
General	
Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	720 W, Standby: 7 W
Heat dissipation:	2457.0 BTU
Operating temperature:	0 to 40°C (32 to 104°F)
Operating humidity:	35 to 85%
Storage temperature:	-20 to 60°C (-4 to 140°F)
Storage humidity:	10 to 90%
Dimensions:	695 (W) × 358 (H) × 948 (D) mm (27 3/8 × 14 1/8 × 37 5/16 inches)
Mass:	Approx. 83 kg (183 lb)
Inputs/Outputs	
Input A	
Analogue RGB/Component:	BNC
R/R-Y:	0.7 Vp-p ±2 dB positive, 75 Ω terminated
G/Y:	0.7 Vp-p ±2 dB positive, 75 Ω terminated
G with sync:	1.0 Vp-p ±2 dB sync negative, 75 Ω terminated
B/B-Y:	0.7 Vp-p ±2 dB positive, 75 Ω terminated
Sync/HD	
Composite sync:	0.6 - 8 Vp-p, high impedance, sync positive/negative
Horizontal sync:	0.6 - 8 Vp-p, high impedance, sync positive/negative
VD:	
Vertical sync:	0.6 - 8 Vp-p, high impedance, sync positive/negative
HDTV[*1] (Y/P$_B$/P$_R$):	BNC
Y:	1.0 Vp-p ±2 dB, 75 Ω terminated
P$_B$/P$_R$:	Tri-sync: ±0.3 Vp-p, bi-sync: 0.3 Vp-p ±0.35 Vp-p ±2 dB, 75 Ω
HDTV[*1] (GBR):	BNC
G with sync:	1.0 Vp-p ±2 dB, 75 Ω terminated Tri-sync: ±0.3 Vp-p, Bi-level sync: 0.3Vp-p
B/R:	0.7 Vp-p ±2 dB, 75 Ω terminated
Input B:	Open slot for optional IFB board
CONTROL S IN/ PLUG IN POWER:	Stereo mini-jack 5 Vp-p, Plug in power DC 5 V, Max. output: 60mA
CONTROL S OUT:	Stereo mini-jack 5Vp-p
REMOTE	
RS-422A:	D-sub 9-pin (female)
ABL Link	
IN:	Mini-jack
OUT:	Mini-jack
TRIG:	Mini-jack Power On: DC 12 V, output impedance 4.7 kΩ Power Off: 0 V
Safety regulations	EN 60 950 (TÜV), CE, PTB

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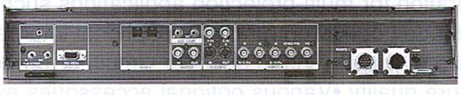
*1 HDTV: 1125/60 interlaced HDTV studio standard system.
*2 Some items are not available in some areas. For further details, please contact your nearest Sony office.
*3 Throw angle: 15.2°, screen radius = 0 mm.
*4 ANSI is a measuring method of American National Standards Institute ANSI IT7.215.

VPH-D50QM (PAL/NTSC/SECAM/NTSC$_{4.43}$/PAL-M)

•Multiscan capability: horizontal 15kHz to 64kHz, vertical 38Hz to 150Hz •Incorporates newly developed 7-inch static focus CRTs •Incorporates an universal air coupling •Remarkable light output of ANSI*1 lumen (colour temperature: 6500°K): 160lm (fH: 64kHz, fV: 50Hz)/130lm (fH: 15kHz, fV: 60Hz), Peak white: 800lm •High resolution of 700TV lines (video)/1000 TV lines (HDTV*2)/1280 x 1024 pixels (RGB in at fH: 64kHz, fV: 60Hz) •Wide RGB bandwidth of 75MHz •Precise registration with the Key/Pin balance mode •Input memory and Video memory available for facilitated set up •Video decoder circuit for enhanced video picture quality •Incorporates the Picture orbiting function •Simplified operation for multi-projection applications such as ABL link and Index operation functions •Optional internal line-doubler board available •Various optional accessories available for system versatility •Desk top mounted projection, ceiling mounted projection, floor mounted projection and rear projection capabilities •Can be used with screens from 60 to 250 inches in size with simple adjustments



Supplied accessories:	Remote commander RM-PJ1000 Remote commander cable (15m) Adjusting plate AA size (R6) battery × 3 AC power cord Operation manual Installation manual
Optional accessories:	Interface board IFB-12/20/21/1000/1301*3 Signal interface cable SIC-10/20A/20C/21/22 Multi-cable*3 CCQ-BRS cable (14-14pin: 2/5/10/25/50m) SIC-M cable (14-14pin: 1/5/15/25/50m) Signal interface switcher PC-1271M Extension board EXB-DS10 (internal line-doubler board) Interface unit IFU-1271M*3 Suspension support PSS-70 Suspension support PSS-10 Remote commander RM-PJM800 Infrared remote control receiver RM-PJ10 Mouse receiver RM-PJ21 Signal adapter ADP-10 (HD D-sub 15-pin to D-sub 9-pin for SIC cable) Signal adapter ADP-20 (Macintosh® to VGA) Monitor cable SMF-400 (HD D-sub 15-pin to 5BNC) Monitor cable SMF-401 (HD D-sub 15-pin to HD D-sub 15-pin) 9-pin remote cable RCC-5G/10G/30G (D-sub 9-pin to D-sub 9-pin for RS-422A) 100-inch flat screen VPS-100FH 120-inch flat screen VPS-120FH

Specifications

Optical

Projection system:	3 picture tubes, 3 lenses, direct projection system
Picture tube:	7-inch (phosphor size 5.5-inch) static focus CRT
Projection lens:	Double focus, F1.0/135mm
Screen coverage:	60 to 250-inch measured diagonally, factory preset to 120-inch
Light output:	ANSI*1: 160lm (fH: 64kHz, fV: 50Hz, 6500K) 130lm (fH: 15kHz, fV: 60Hz, 6500K) 800lm (peak white) 200lm (all white)
Throw distance:	60-inch 1902mm (6 ft $2\frac{7}{8}$ inches) 70-inch 2179mm (7 ft $1\frac{25}{32}$ inches) 100-inch 3016mm (9 ft $10\frac{3}{4}$ inches) 120-inch 3571mm (11 ft $8\frac{19}{32}$ inches) 150-inch 4424mm (14 ft $6\frac{3}{16}$ inches) 200-inch 5844mm (19 ft $2\frac{3}{32}$ inches) 250-inch 7257mm (23 ft $9\frac{23}{32}$ inches)

Signals

Colour system:	PAL, NTSC, SECAM, NTSC$_{4.43}$, PAL-M
Resolution:	700TV lines (video) 1000TV lines (HDTV) 1280 × 1024 pixels (RGB, measured at fH: 64kHz, fV: 60Hz)
Scanning frequency:	Horizontal: 15 to 64kHz Vertical: 38 to 150Hz
RGB bandwidth:	75MHz-3dB

General

Power requirements:	AC 220 to 240V, 50/60Hz
Power consumption:	450W, Standby: 7W
Heat dissipation:	1535.7BTU
Operating temperature:	0 to 40°C (32 to 104°F)
Operating humidity:	35 to 85%
Storage temperature:	-20 to 60°C (-4 to 140°F)
Storage humidity:	10 to 90%
Dimensions:	603(W) × 345(H) × 671(D)mm ($23\frac{3}{4}$ × $13\frac{5}{8}$ × $26\frac{1}{2}$ inches)
Mass:	Approx. 54 kg (119 lb 1 oz)

Inputs/Outputs

Video:	Loop-through BNC 1Vp-p±2dB sync negative, 75Ω
S Video:	
Y IN:	BNC 1Vp-p±2dB sync negative, 75Ω
C IN:	BNC Burst 0.286Vp-p±2dB (NTSC), 75Ω 0.3Vp-p±2dB (PAL), 75Ω
Y/C IN:	Loop-through mini DIN 4-pin Y (luminance): 1Vp-p±2dB sync negative, 75Ω C (chrominance): Burst 0.286±2dB (NTSC), 75Ω 0.3±2dB (PAL), 75Ω
Input A:	BNC × 5
Analog RGB/Component:	
R/R-Y:	0.7Vp-p±2dB positive, 75Ω
G:	0.7Vp-p±2dB positive, 75Ω,
G with sync/Y:	1Vp-p±2dB sync negative, 75Ω
B/B-Y:	0.7Vp-p±2dB positive, 75Ω
Sync/HD:	Composite sync: 0.6 to 8Vp-p, high impedance, positive/negative Horizontal sync: 0.6 to 8Vp-p, high impedance, positive/negative
VD:	Vertical sync: 0.6 to 8Vp-p, high impedance, positive/negative
HDTV*2 (Y/P$_B$/P$_R$):	
Y:	1Vp-p±2dB, 75Ω Tri-level sync: ±0.3Vp-p, Bi-level sync: 0.3Vp-p
P$_B$/P$_R$:	(0.35Vp-p±2dB, 75Ω
HDTV*2(GBR):	
G with sync:	1Vp-p±2dB, 75Ω Tri-level sync: ±0.3Vp-p, Bi-level sync: 0.3Vp-p
B/R:	0.7Vp-p±2dB, 75Ω
Input B:	Supplied with an IFB-40: 14-pin multi connector (input: male, output: female)
CONTROL S IN/ PLUG IN POWER:	Stereo mini-jack 5Vp-p, plug in power DC5V, maximum output 60mA
OUT:	Stereo mini-jack, 5Vp-p
REMOTE	
RS-422A:	D-sub 9 pin (female)
ABL Link	
IN:	Stereo mini-jack
OUT:	Stereo mini-jack
TRIG:	Mini-jack Power On: DC5V, output impedance 4.7kΩ Power Off: 0V

Safety regulations	EN60 950 (TÜV), CE, PTB, C-Tick Mark

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*1 ANSI is a measuring method of American National Standards Institute ANSI IT 7.215.

*2 HDTV: 1125/60 interlaced HDTV studio standard system.

*3 Some items are not available in some areas. For further details, please consult your nearest Sony office.

VPH-D50HTM (PAL/NTSC/SECAM/NTSC$_{4.43}$/PAL-M)

•Multiscan capability: horizontal 15 kHz to 64 kHz, vertical 38 Hz to 150 Hz.•Incorporates newly developed 7-inch static focus CRTs •Incorporates a universal air coupling •Remarkable light output of ANSI[1] lumen (colour temperature: 6500°K): 160 lm (fH: 64 kHz, fV: 50 Hz)/130 lm (fH: 15 kHz, fV: 60 Hz), Peak white: 800 lm •High resolution of 700 TV lines (video)/1000 TV lines (HDTV[2])/1280 × 1024 pixels (RGB in at fH: 64 kHz, fV: 60 Hz) •Wide RGB bandwidth of 75 MHz •Precise registration with the Key/Pin balance mode •Input memory and Video memory available for facilitated set up •Video decoder circuit for enhance video picture quality •Incorporates the picture orbiting function •Simplified operation for multi-projection applications such as ABL link and Index operation functions •Internal line-doubler board included as a standard feature •Various optional accessories available for system versatility •Table-top projection, ceiling mounted projection, floor mounted projection and rear projection capabilities •Can be used with screens from 60 to 250 inches in size with simple adjustments

Supplied accessories:	Remote commander RM-PJ1001 Remote commander RM-PJD50 Remote commander cable (15 m) Adjustment plate AA size (R6) battery (3) Button battery CR2025 (1) AC power cord Operating manual Installation manual
Optional accessories:	Signal interface cable SIC-10 Interface unit IFU-1271M Suspension support PSS-70 Suspension support PSS-10 Remote commander RM-PJM800 Infrared remote control receiver RM-PJ10 Mouse receiver RM-PJ21 Monitor cable SMF-400 (HD D-sub 15-pin to 5 BNC) Remote cable RCC-5G/10G/30G (D-sub 9-pin to D-sub 9-pin for RS-422A) 100-inch flat screen VPS-100FH 120-inch flat screen VPS-120FH[3]

Specifications

Optical	
Projection system:	3 picture tubes, 3 lenses, direct projection system
Picture tube:	7-inch (phosphor size 5.5-inch) high luminance air coupled (Colour corrected: Red/Green), static focus tubes
Projection lens:	Double focus, F1.0/135 mm
Screen coverage:	60 to 250 inches measured diagonally (factory preset to 100 inches)
Light output:	ANSI[1]: 160 lm (fH: 64 kHz, fV: 50 Hz, 6500K) ANSI[1]: 130 lm (fH: 15 kHz, fV: 60 Hz, 6500K) Peak white: 800 lm All white: 200lm
Throw distance: (in 4:3 mode)	60-inch 1902 mm (6 ft 2 7/8 inches) 70-inch 2179 mm (7 ft 1 25/32 inches) 100-inch 3016 mm (9 ft 10 3/4 inches) 120-inch 3571 mm (11 ft 8 19/32 inches) 150-inch 4424 mm (14 ft 6 3/16 inches) 200-inch 5844 mm (19 ft 2 3/32 inches) 250-inch 7257 mm (23 ft 9 23/32 inches)
Signals	
Colour system:	PAL, NTSC, SECAM, NTSC$_{4.43}$, PAL-M
Resolution:	700 TV lines (video) 1000 TV lines (HDTV) 1280 × 1024 pixels (RGB, measured at fH: 64 kHz, fV: 60 Hz)
Scanning frequency:	Horizontal: 15 to 64 kHz Vertical: 38 to 150 Hz
RGB bandwidth:	75 MHz (-3 dB)
General	
Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	450 W, Standby: 7 W
Heat dissipation:	1535.7 BTU
Operating temperature:	0 to 40°C (32 to 104°F)
Operating humidity:	35 to 85%
Storage temperature:	-20 to 60°C (-4 to 140°F)
Storage humidity:	10 to 90%
Dimensions:	603 (W) × 345 (H) × 671 (D) mm (23 3/4 × 13 5/8 × 26 1/2 inches)
Mass: Approx.	54 kg (119 lb 1 oz)
Inputs/Outputs	
Video	
Composite:	Loop-through BNC 1.0 Vp-p ±2 dB sync negative, 75 Ω automatic termination
Y IN:	BNC, 1.0 Vp-p ±2 dB sync negative, 75 Ω terminated
C IN:	BNC, Burst 0.3 Vp-p ±2 dB (PAL), 75 Ω terminated or 0.286 Vp-p ±2 dB (NTSC), 75 Ω terminated
Y/C IN:	Loop-through Mini DIN 4-pin
Y:	1.0 Vp-p ±2 dB sync negative, 75 Ω automatic termination
C:	Burst 0.3 ±2 dB (PAL), 75 Ω automatic termination or 0.286 ±2 dB (NTSC), 75 Ω automatic termination
Input A/B	
Analogue RGB/Component: BNC	
R/R-Y:	0.7 Vp-p ±2 dB positive, 75 Ω terminated
G/Y:	0.7 Vp-p ±2 dB positive, 75 Ω terminated
G with sync:	1.0 Vp-p ±2 dB sync negative, 75 Ω terminated
B/B-Y:	0.7 Vp-p ±2 dB positive, 75 Ω terminated
Sync/HD	
Composite sync:	0.6 - 8 Vp-p, high impedance, sync positive/negative
Horizontal sync:	0.6 - 8 Vp-p, high impedance, sync positive/negative
VD	
Vertical sync:	0.6 - 8V p-p, high impedance, sync positive/negative
HDTV[2] (Y/P$_B$/P$_R$):	BNC
Y:	1.0 Vp-p ±2 dB, 75 Ω terminated
P$_B$/P$_R$:	Tri- sync: ±0.3 Vp-p, bi-sync: 0.3 Vp-p ±0.35 Vp-p ±2 dB, 75 Ω
HDTV[2] (GBR):	BNC
G with sync:	1.0 Vp-p ±2 dB, 75 Ω terminated Tri-sync: ±0.3 Vp-p, bi-sync: 0.3 Vp-p
B/R:	0.7 Vp-p ±2 dB, 75 Ω terminated
Video (YC)[4]	
Y:	BNC, 1.0 Vp-p ±2 dB sync negative, 75 Ω terminated
C:	BNC, Burst 0.3 ±2 dB (PAL), 75 Ω terminated or 0.286 ±2 dB (NTSC), 75 Ω terminated
Video (Composite)[4]	
VIDEO:	1.0 Vp-p ±2 dB sync negative, 75 Ω automatic termination
CONTROL S IN/ PLUG IN POWER:	Stereo mini-jack 5Vp-p, Plug in power DC 5 V, Max. output 60 mA
CONTROL S OUT:	Stereo mini-jack 5Vp-p
REMOTE	
RS-422A:	D-sub 9 pin (female)
ABL Link	
IN:	Mini-jack
OUT:	Mini-jack
TRIG:	Mini-jack Power On: DC 12 V, output impedance 4.7 kΩ Power Off: 0 V
Safety regulations	EN 60 950 (TÜV), CE, PTB

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[1] ANSI is a measuring method of American National Standards Institute ANSI IT 7.215.
[2] HDTV: 1125/60/2:1 and 1125/59.94/2:1 (SMPTE-240M/274M) HDTV systems.
[3] Some items are not available in some areas. For further details, please consult your nearest Sony office.
[4] Input B only.

RVP-6010QM (PAL/NTSC/SECAM/NTSC$_{4.43}$)

•60-inch multiscan rear projection unit •Multiscan capability: horizontal 15 to 93kHz, vertical 38 to 150Hz •High contrast images with Optical Coupling CRT •Employs a two-layer screen (Lenticular/Fresnel) for a wide vertical viewing angle •A high resolution of 1400 × 1120 pixels (RGB input)/700TV lines (Composite video input) •Heavy duty casters with brakes for high mobility •Supplied wired/wireless remote control RM-PJ1292 for full adjustments and operation of the projector •Optional IFB series interface boards, IFU-1271M interface unit, the SIC series signal interface cables and the PC-1271M signal interface switcher expands the system versatility

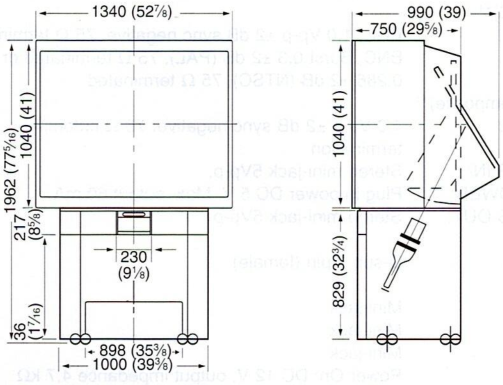
Supplied accessories:	Interface board IFB-11 Remote commander RM-PJ1292 Remote control cable (15 m) Extension board AC power cord
Optional accessories:	Interface Board: IFB-11/20/101/1000/1200/1301/3000[*1] Signal interface switcher: PC-1271M Interface unit: IFU-1271M Signal interface cables: SIC-10/20A/20C/21/22 Multi cable[*2]: CCQ-BRS cables (14-14pin, 2/5/10/25/50 m) SIC-M cable (14-14pin, 1/5/15/25/50 m) Infrared remote control unit RM-1270S (Supplied with PC-1271M) Remote control receiver RM-PJ10

Specifications

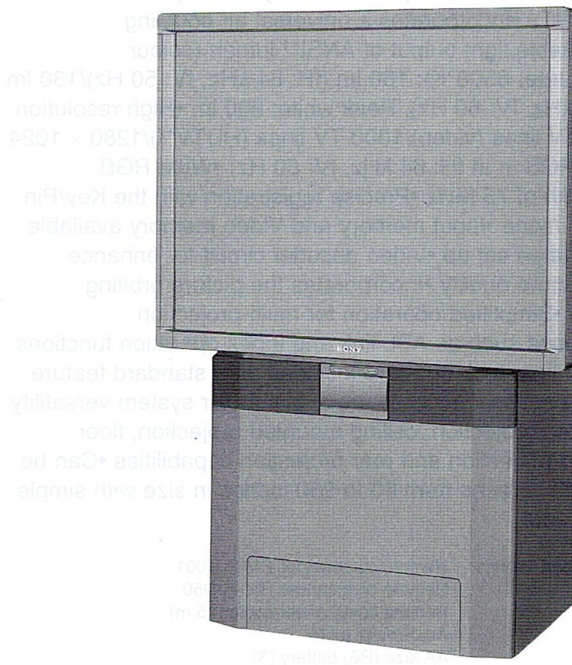
General

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system:	PAL/NTSC/SECAM/NTSC$_{4.43}$[*3] (automatically selected)
Picture tube:	7-inch (6.2 inch V) high-luminance monochrome optical coupled with coolant sealed
Projection lens:	New High performance multi-coated HACC lens, F1.1/116 mm
Projection picture size:	60-inch: 1219(W) × 914(H) mm (4.0 × 3.0 ft)
Screen:	Black stripe two-layer (lenticular/ fresnel)
Brightness:	ANSI[*4]: 100cd/m² (100nits) (fH: 93kHz, fV: 50Hz) 90cd/m² (90nits) (fH: 15kHz, fV: 60Hz) Colour temperature: 6500°K Peak white: 150ft-L (514cd/m²) All white: 40ft-L (137cd/m²)
Contrast ratio:	70:1
Viewing angle:	Horizontal: ±57° Vertical: ±30°
Scanning frequency:	Horizontal: 15 to 93kHz Vertical: 38 to 150Hz

Dimensions



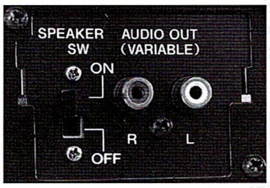
Unit: mm (inch)

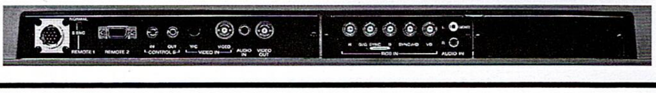


Resolution:	700TV lines (VIDEO IN) 1400 × 1120 pixels (RGB in, measured at fH: 69kHz, fV: 60Hz)
Speakers:	Max. 10W+10W, stereo
Power requirements:	AC 220 to 240V, 50/60Hz
Power consumption:	680W max.
Mass:	200 kg (440 lb 15 oz)

Input

Video	
Composite[*5]	Loop-through BNC 1.0Vp-p, sync negative, Automatic 75Ω termination[*6]
Y/C[*5]	Mini DIN 4-pin Y (Luminance signal): 1Vp-p, sync negative, 75Ω C (Chrominance signal):0.3Vp-p (PAL), 0.286Vp-p (NTSC), 75Ω
Audio	Phono -5dBu, impedance more than 47kΩ
INPUT A:(Supplied with IFB-11)	
R/B:	BNC 0.7Vp-p, positive, 75Ω
G/sync on G:	BNC 0.7Vp-p, positive, 75Ω (Non-composite) or 1Vp-p, sync negative, 75Ω (Composite)
Sync:	Composite sync: BNC Analogue level: 0.6 to 8Vp-p, high impedance, positive/negative TTL level: positive/negative HD/VD separate: BNC Analogue level: 0.6 to 8Vp-p, high impedance, positive/negative TTL level: positive/negative
Audio:	Phono: -5dBu, impedance more than 47kΩ stereo or monaural selectable
INPUT B:(Open for optional interface board)	





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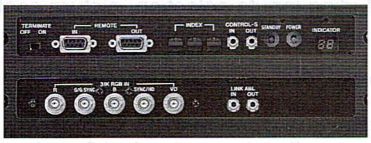
*1 The IFB-3000 should be installed in the PC-1271M.
*2 These cables are not available in some areas. For details, please consult your nearest Sony office.
*3 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*4 ANSI is measuring method of American National Standards Institute ANSI IT7.215.
*5 The Y/C input has priority over the Composite video input.
*6 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

RVP-511DMS (PAL/NTSC/SECAM/NTSC$_{4.43}$)

•50-inch projection wall unit for various projection wall applications •Light in weight (88 kg) and a short cabinet depth (1236 mm) for easier handling and stacking •Input capability: double scan video signals and computer signals which conform to VGA mode 3 (31.469 kHz/59.94 Hz) standard •Optional PWB-411D video input board available for composite, Y/C, component and 15 kHz RGB video signals •Double scan capability for flicker free signal reproduction when using with the optional PWB-411D video input board •Adopts optical coupling CRT for high contrast image display. •Colour temperature selection: 3200K/6500K/9300K/User preset (factory preset: 6500K) •Two-part construction enables the CRT assembly, together with the electronic chassis, to be easily separated from the cabinet •Wide viewing angle: horizontal 150 degrees, vertical 70 degrees •Optional VPS-515RF/511RF screens with ultra-thin screen surround are available •Optional CHP-411DM projection wall chassis available for system versatility •Optional wired/wireless remote control unit RM-PJ1292* with address function for all projctor control functions, including inputs selection, picture control, RGB size and shift and centering controls



* RM-PJ1292 is included in the system control kit PWK-411D.

Supplied Accessories:	AC power cord (1) Remote control cable (1.2 m × 1) Operation manual (1)	
Optional Accessories:	VPS-515RF:	Optional Screen with 0.2 mm screen surround
	VPS-511RF:	Optional Screen with 1.7 mm screen surround
	PWK-411D:	System Control Kit (Including RM-PJ1292 Remote Commander and installation manual)
	PWB-411D:	Video Input Board
	PWR-B511A:	Base Stand
	PWR-P512A:	Position Beam for dual mount
	PWR-P513A:	Position Beam for triple mount
	RM-PJ10:	Remote Control Receiver
	RCC-1W2:	9-pin remote cable (D-sub 9-pin M to D-sub 9-pin M for RS-422)

Specifications

Optical

Projection System:	3 picture tubes, 3 lenses, rear projection
Picture Tube:	7.7-inch (5.5-inch raster size) high-luminance monochrome optical coupled with sealed coolant
Projection Lens:	High performance lens, F1.1/77 mm
Screen:	Optional (See Optional Accessories)
Light Output[*1]:	ANSI[*2]: 125 cd/m^2 (fH: 31.5 kHz, fV: 60Hz) Colour temperature: 6500°K Peak white: 977 cd/m^2

Electrical

Scan Frequency:	31.25 kHz/50 Hz/1:1, 31.25 kHz/100 Hz/2:1 31.5 kHz/60 Hz/1:1, 31.5 kHz/120 Hz/2:1 (Horizontal Frequency/Vertical Frequency/Interlace Ratio)	
Resolution:	1000 × 580 dots (measured at RGB 31.25 kHz input)	
RGB Bandwidth:	30 MHz (-3 dB)	
Test Signal:	Cross hair, Hatch (fine), Diagonal hatch, Circle hatch, Dot pattern, H pattern, ME, Window, All white (100 IRE), Black	
Input: 31 kHz:	RGB: BNC × 5	
	R:	0.7 Vp-p ±2 dB, 75 Ω
	G:	0.7 Vp-p ±2 dB, 75 Ω
	G on sync:	1.0 Vp-p ±2 dB, 75 Ω, sync negative
	B:	0.7 Vp-p ±2 dB, 75 Ω
	H sync/C sync:	1.0 to 4.0 Vp-p, 75 Ω, positive/negative
	V sync:	1.0 to 4.0 Vp-p, 75 Ω, positive/negative
15 kHz:	*Available when an optional PWB-411D Video Input Board, is inserted. See PWB-411D specifications.	
Control-S:	Mini Jack (mono)	
Remote:	RS-422: D-sub 9-pin connector (female) Linked ABL: Mini Jack (mono)	
Output: Control-S:	Mini Jack (mono)	
Remote:	RS-422: D-sub 9-pin connector (female) Linked ABL: Mini Jack (mono)	

General

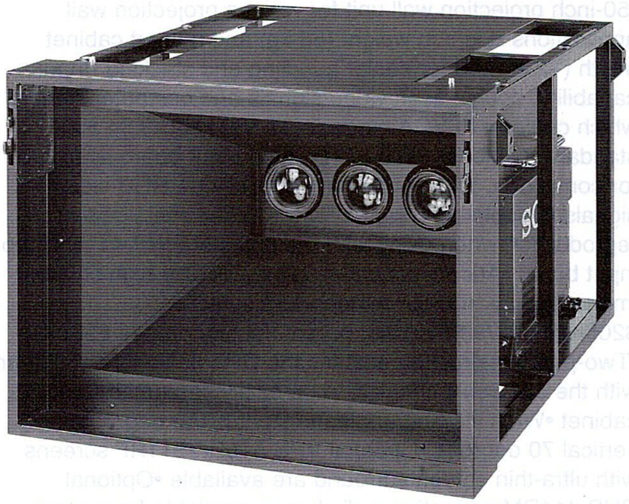
Power Supply:	AC 200 to 240 V, 50/60 Hz
Power Consumption:	200-240V, 1.4A, 300 W
Dimensions (max.):	1018(W) × 781(H) × 1236(D) mm ($40\frac{1}{8} \times 30\frac{3}{4} \times 48\frac{3}{4}$ inch)
Mass:	88 kg (194 lb)

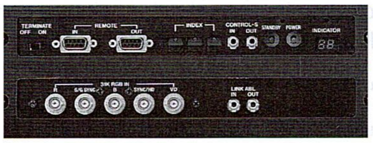
[*1] In the case of the RVP-511DMS with the VPS-511RF optional screen.

[*2] ANSI is a measuring method of the American National Standard ANSI IT 7.215.

RVP-411DMS (PAL/NTSC/SECAM/NTSC4.43)

•41-inch projection wall unit for various projection wall applications •Light in weight (75 kg) and a short cabinet depth (1044 mm) for easier handling and stacking •Input capability: double scan video signals and computer signals which conform to VGA mode 3 (31.469 kHz/59.94 Hz) standard •Optional PWB-411D video input board available for composite, Y/C, component and 15 kHz RGB video signals •Double scan capability for flicker free signal reproduction when using with the optional PWB-411D video input board •Adopts optical coupling CRT for high contrast image display •Colour temperature selection: 3200K/6500K/9300K/User preset (factory preset: 6500K) •Two-part construction enables the CRT assembly, together with the electronic chassis, to be easily separated from the cabinet •Wide viewing angle: horizontal 160 degrees, vertical 60 degrees •Optional VPS-415RF/411RF screens with ultra-thin screen surround are available. •Optional CHP-411DM projection wall chassis available for system versatility •Optional wired/wireless remote control unit RM-PJ1292* with address function for all projctor control functions, including inputs selection, picture control, RGB size and shift and centering controls





* RM-PJ1292 is included in the system control kit PWK-411D.

Supplied Accessories:	AC power cord (1) Remote control cable (1.2 m × 1) Operation manual (1)	
Optional Accessories:	VPS-415RF:	Optional Screen with 0.2 mm screen surround
	VPS-411RF:	Optional Screen with 0.2 mm screen surround
	PWK-411D:	System Control Kit (Including RM-PJ1292 Remote Commander and installation manual)
	PWB-411D:	Video Input Board
	PWR-B411A:	Base Stand
	PWR-P412A:	Position Beam for dual mount
	PWR-P413A:	Position Beam for triple mount
	RM-PJ10:	Remote Control Receiver
	RCC-1W2:	9-pin remote cable (D-sub 9-pin M to D-sub 9-pin M for RS-422)

Specifications

Optical

Projection System:	3 picture tubes, 3 lenses, rear projection
Picture Tube:	7.7-inch (5.5-inch raster size) high-luminance monochrome optical coupled with sealed coolant
Projection Lens:	High performance lens, F1.1/77 mm
Screen:	Optional (See Optional Accessories)
Light Output*1:	ANSI*2: 280 cd/m² (fH: 31.5 kHz, fV: 60Hz) Colour temperature: 6500°K Peak white: 2056 cd/m²

Electrical

Scan Frequency:		31.25 kHz/50 Hz/1:1, 31.25 kHz/100 Hz/2:1 31.5 kHz/60 Hz/1:1, 31.5 kHz/120 Hz/2:1 (Horizontal Frequency/Vertical Frequency/Interlace Ratio)
Resolution:		800 × 580 dots (measured at RGB 31.25 kHz input)
RGB Bandwidth:		30 MHz (-3 dB)
Test Signal:		Cross hair, Hatch (fine), Diagonal hatch, Circle hatch, Dot pattern, H pattern, ME, Window, All white (100 IRE), Black
Input:	RGB: BNC × 5	
31 kHz:	R:	0.7 Vp-p ±2 dB, 75 Ω
	G:	0.7 Vp-p ±2 dB, 75 Ω
	G on sync:	1.0 Vp-p ±2 dB, 75 Ω, sync negative
	B:	0.7 Vp-p ±2 dB, 75 Ω
	H sync/C sync:	1.0 to 4.0 Vp-p, 75 Ω, positive/negative
	V sync:	1.0 to 4.0 Vp-p, 75 Ω, positive/negative
15 kHz:		*Available when an optional PWB-411D Video Input Board, is inserted. See PWB-411D specifications.
Control-S:		Mini Jack (mono)
Remote:		RS-422: D-sub 9-pin connector (female) Linked ABL: Mini Jack (mono)
Output:		
Control-S:		Mini Jack (mono)
Remote:		RS-422: D-sub 9-pin connector (female) Linked ABL: Mini Jack (mono)

General

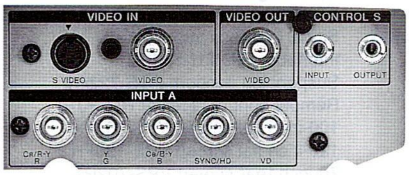
Power Supply:	AC 200 to 240 V, 50/60 Hz
Power Consumption:	200-240V, 1.4A, 300 W
Dimensions (max.):	830(W) × 641(H) × 1044(D) mm (32³/₄ × 25¹/₄ × 41¹/₈ inch)
Mass:	75 kg (165 lb 6 oz)

[*1] In the case of the RVP-411DMS with the VPS-411RF optional screen.
[*2] ANSI is a measuring method of the American National Standard ANSI IT 7.215.

VPH-V22M (PAL/NTSC/SECAM/NTSC$_{4.43}$)

•Remarkable light output of ANSI 700 lm(peak white) •Adopts high quality performance HACC lens •Accepts Component (Y/R-Y/B-Y or RGB), Y/C and Composite Video signals •A high resolution of 700 TV lines (composite video)/1000 TV lines(RGB) •Supplied remote control unit RM-PJV20 controls all projector functions •Desk top mounted projection, ceiling mounted projection, floor mounted projection and rear projection capabilities •Can be used with a screen from 70 to 250 inches in size with simple adjustment

Supplied accessories:	Remote commander RM-PJV20 AA size batteries (2) AC power cord Spacer for 508 cm (200-inch) front projection Spacer (0.2 mm) for 254 cm (70 to 100-inch) rear projection Spacer (0.8 mm) for 254 cm (70 to 100-inch) rear projection Operating manual Installation manual
Optional accessories:	Signal interface cable SIC-10 Interface unit: IFU-1271M Suspension support: PSS-722/10 Remote control receiver RM-PJ10 100-inch flat screen VPS-100FH 120-inch flat screen VPS-120FH 70-inch rear screen VPS-702R



Specifications

Optical	
Projection system:	3 picture tubes, 3 lenses, direct projection system
CRT:	7-inch (Phosphor size: 5.5-inch) liquied cooled high brightness monochrome tubes
Projection lens:	HACC (High-resolusion Aspherical and Colour Corrected) lens F1.0/135 mm
Screen	70-inch (177.8 cm) to 250-inch (635 cm) measured diagonally (Factory preset: 100-inch (254 cm))
Light output:	ANSI*2 100 lm (15 kHz: 60Hz, 6500 K) Peak white: 700 lm, All white: 140 lm
Throwing distance:	100-inch (254 cm): 3301 mm (Approx. 11 ft) 200-inch (508 cm): 6417 mm (Approx. 21 ft)
Signals	
Colour system:	NTSC, PAL, SECAM, NTSC$_{4.43}$*1 automatically selected
Resolution:	700 TV lines (Composite video input) 1000 TV lines (RGB input)
Test signals:	Cross hair
General	
Power requirements:	220 V AC to 240 V AC, 50/60 Hz
Power consumption:	210 W
Operating temperature:	0 to 40 °C (14 to 104 °F)
Operating humidity:	35 to 85 %
Storage temperature:	-20 to 60 °C (-4 to 140 °F)
Storage humidity:	10 to 90 %
Dimensions:	532 (W) × 288 (H) × 597 (D) mm
Mass:	Approx. 38 kg (83 lb 12 oz)
Heat dispersion:	716.6 BTU
Inputs/Outputs	
VIDEO IN:	
Video*3:	BNC 1.0 Vp-p ±2 dB, sync negative, 75 Ω
S video*3:	Mini DIN 4-pin Y (luminance): 1.0 Vp-p ±2 dB, sync negative, 75 Ω C (chrominance): Burst 0.286 Vp-p ±2 dB (NTSC), 75Ω or 0.3 Vp-p ±2 dB (PAL), 75 Ω
VIDEO OUT:	
Video:	BNC 1.0 Vp-p ±2 dB, 75 Ω
INPUT A:	
Analogue RGB/Component:	
BNC	
R/R-Y:	0.7 Vp-p ±2 dB, positive, 75 Ω
G:	0.7 Vp-p ±2 dB, positive, 75 Ω
G with Sync/Y:	1.0 Vp-p ±2 dB, sync negative, 75 Ω
B/B-Y:	0.7 Vp-p ±2 dB, positive, 75 Ω
SYNC/HD:	
Composite sync:	0.6~8.0 Vp-p, high impedance negative
Horizontal sync:	0.6~8.0 Vp-p, high impedance negative
VD:	
Vertical sync:	0.6~8.0 Vp-p, high impedance negative
Control S:	Loop-through Stereo Mini Jack
Safety Regulations:	
	EN60 065 (TÜV), CE, C-Tick, PTB

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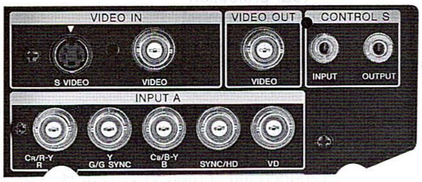
*1 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*2 ANSI is a measuring method of American National Standards Institute ANSI IT7.215.
*3 S VIDEO input has priority over Composite video input.

VPH-V20M (PAL/NTSC/SECAM/NTSC$_{4.43}$)

•Remarkable light output of ANSI 700 lm(peak white) •Accepts Component (Y/R-Y/B-Y or RGB), Y/C and Composite Video signals •A high resolution of 700 TV lines (composite video)/1000 TV lines(RGB) •Supplied remote control unit RM-PJV20 controls all projector functions •Desk top mounted projection, ceiling mounted projection, floor mounted projection and rear projection capabilities •Can be used with a screen from 70 to 250 inches in size with simple adjustment



Supplied accessories:	Remote commander RM-PJV20 AA size batteries (2) AC power cord Spacer for 508 cm (200-inch) front projection Spacer (0.2 mm) for 254 cm (70 to 100-inch) rear projection Spacer (0.8 mm) for 254 cm (70 to 100-inch) rear projection Operating manual Installation manual
Optional accessories:	Signal interface cable SIC-10 Interface unit: IFU-1271M Suspension support: PSS-722/10 Remote control receiver RM-PJ10 100-inch flat screen VPS-100FH 120-inch flat screen VPS-120FH 70-inch rear screen VPS-702R

Specifications

Optical	
Projection system:	3 picture tubes, 3 lenses, direct projection system
CRT:	7-inch (Phosphor size: 5.5-inch) liquied cooled high brightness monochrome tubes
Projection lens:	High performance hybrid multi-coated lens F1.0/130 mm
Screen	70-inch (177.8 cm) to 250-inch (635 cm) measured diagonally (Factory preset: 100-inch (254 cm))
Light output:	ANSI[2] 100 lm (15 kHz: 60Hz, 6500 K) Peak white: 700 lm, All white: 140 lm
Throwing distance:	100-inch (254 cm):3301 mm (Approx. 11 ft) 200-inch (508 cm):6417 mm (Approx. 21 ft)
Signals	
Colour system:	NTSC, PAL, SECAM, NTSC$_{4.43}$[1] automatically selected
Resolution:	700 TV lines (Composite video input) 1000 TV lines (RGB input)
Test signals:	Cross hair
General	
Power requirements:	220 V AC to 240 V AC, 50/60 Hz
Power consumption:	210 W
Operating temperature:	0 to 40 °C (14 to 104 °F)
Operating humidity:	35 to 85 %
Storage temperature:	-20 to 60 °C (-4 to 140 °F)
Storage humidity:	10 to 90 %
Dimensions:	532 (W) × 288 (H) × 597 (D) mm
Mass:	Approx. 30 kg (66 lb 2 oz)
Heat dispersion:	716.6 BTU
Inputs/Outputs	
VIDEO IN:	
Video[3]:	BNC 1.0 Vp-p ±2 dB, sync negative, 75 Ω
S video[3]:	Mini DIN 4-pin Y (luminance): 1.0 Vp-p ±2 dB, sync negative, 75 Ω C (chrominance): Burst 0.286 Vp-p ±2 dB (NTSC), 75Ω or 0.3 Vp-p ±2 dB (PAL), 75 Ω
VIDEO OUT:	
Video:	BNC 1.0 Vp-p ±2 dB, 75 Ω
INPUT A:	
Analogue RGB/Component:	
BNC	
R/R-Y:	0.7 Vp-p ±2 dB, positive, 75 Ω
G:	0.7 Vp-p ±2 dB, positive, 75 Ω
G with Sync/Y:	1.0 Vp-p ±2 dB, sync negative, 75 Ω
B/B-Y:	0.7 Vp-p ±2 dB, positive, 75 Ω
SYNC/HD:	
Composite sync:	0.6~8.0 Vp-p, high impedance negative
Horizontal sync:	0.6~8.0 Vp-p, high impedance negative
VD:	
Vertical sync:	0.6~8.0 Vp-p, high impedance negative
Control S:	Loop-through Stereo Mini Jack
Safety Regulations:	
	EN60 065 (TÜV), CE, C-Tick, PTB

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[1] The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
[2] ANSI is a measuring method of American National Standards Institute ANSI IT7.215.
[3] S VIDEO input has priority over Composite video input.

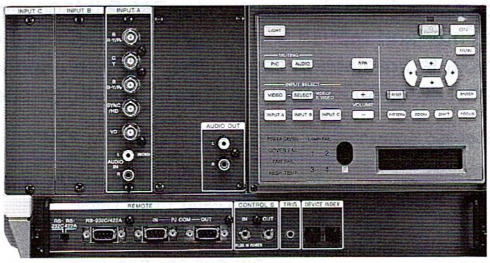
VPL-X2000E/X2000M (PAL/NTSC/SECAM/$\text{NTSC}_{4.43}$/PAL-M)

LCD Data Projector

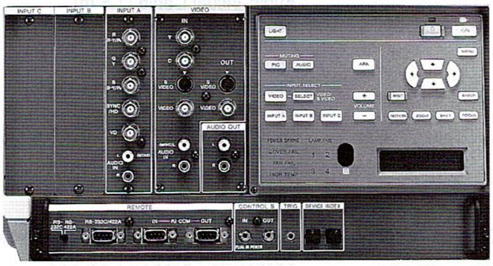
•LCD (Liquid Crystal Display)- based data projector •Three LCD panels for a total of 2,359,296 pixels (786,432 pixels x 3 panels) •Four 120 W UHP lamps •Outstanding light output of 2400 ANSI[*1] lumens •Excellent uniformity assured with 3D Digital gamma correction •Exclusive Sony DRC (Digital Reality Creation) generates video pictures with effectively four times the resolution of that from a conventional video signal •Multiscan capability with a built-in scan converter: fH: 15 to 94 kHz, fV:50 to 120 Hz •Power zoom, power focus and picture shift functions for installation flexibility •New graphical on-screen menus with a choice of seven languages for adjustment/operation •Supplied remote commander RM-PJ1001 controls all the projector functions •Six optional lenses available •Can be used with screens from 40 to 500 inches in size •Power saving mode available

Supplied accessories: Remote commander RM-PJ1001
Remote commander cable (15 m)
AA size battery (3)
AC power cord
PJ COM terminator
Lens ring
Operation manual
Installation manual

Optional accessories: Projector quadruple lamp (for replacement) LMP-Q2000
Projector individual lamp LMP-S2000
1.3 times zoom standard focus lens VPLL-Z2019
1.6 times zoom long focus lens VPLL-Z2025
1.5 times zoom long focus lens VPLL-Z2039
Fixed long focus lens VPLL-2075
Fixed short focus lens VPLL-2014
Fixed short focus lens VPLL-2009
Stack stand (for twin and triple stacking) SU-PJ2000
Suspension support PSS-2000
Suspension support PSS-10
Signal adaptor HD D-sub 15-pin to D-sub 9-pin (for SIC Cable) ADP-10
Signal adaptor Macintosh® to VGA® ADP-20
D-sub HD 15-pin to 5 BNC cable SMF-400
D-sub HD 15-pin to D-sub HD 15-pin SMF-401
Interface board IFB-12A/21/30/1000/50/X2000E
Signal interface cable SIC-20A/20C/22
Signal interface switcher PC-3000
9-pin remote cable RCC-5G/10G/30G (for RS-422A)
Remote commander RM-PJ3000S[*2]
Remote control receiver RM-PJ10
100-inch flat screen VPS-100FH



VPL-X2000E



VPL-X2000M

Specifications

Optical

Projection system: 3 LCD panels, 1 lens projection
LCD panel: 1.8-inch TFT LCD panel, 2,359,296 pixels (786,432 pixels x3)
Lamp: 120 W UHP lamp (4)
Light output: ANSI[*1] 2400 lm (typical)
Projection picture size: 40-inch to 500-inch
Optional projection lenses:

	Throwing distance (unit: mm)		
	40-inch	100-inch	300-inch
VPLL-Z2019 (1.3 times zoom lens)	1,490 - 1,890	3,870 - 4,880	11,820 - 14,840
VPLL-Z2025 (1.6 times zoom lens)	N.A.	5,020 - 7,750	15,430 - 23,580
VPLL-Z2039 (1.5 times zoom lens)	N.A.	7,990 - 11,480	24,300 - 34,760
VPLL-2075 (fixed long focus lens)	N.A.	15,000	44,660
VPLL-2014 (fixed short focus lens)	1,030	2,760	8,520
VPLL-2009 (fixed short focus lens)	640	1,800	5,670

General

Colour system: PAL/NTSC/SECAM/$\text{NTSC}_{4.43}$/PAL-M (automatically selected)
Resolution: Video: 600 TV lines
RGB: 1024 x 768 pixels
Scanning frequency: fH: 15 kHz - 94 kHz
fV: 50 Hz - 120 Hz
Display area: >6.4 µsec
Speaker: 5 W stereo
Power requirements: AC 220 to 240 V, 50/60 Hz
Power consumption: Max: 770 W (approx.), Standby: 20 W
Heat dissipation: 2628 BTU
Dimensions: 562 (W) × 237 (H) × 649 (D) mm (22 ¼ × 9 ⅜ × 25 ⅝ inches)
Mass: Approx. 34.5 kg (75 lb 14 oz)
Operating temperature: 0 to 40°C (32 to 104°F)
Operating humidity: 35 to 85% (no condensation)
Storage temperature: -20 to 60°C (-4 to 140°F)
Storage humidity: 10 to 90%

Input/Output

VIDEO IN[*3]
  Composite video: Loop-through BNC 1.0 Vp-p ± 2 dB sync negative, 75 Ω
S VIDEO IN[*3]
  Y IN: BNC 1.0 Vp-p ± 2 dB sync negative, 75 Ω
  C IN: BNC Burst 0.3 Vp-p ± 2 dB (PAL), 75 Ω or 0.286 Vp-p ± 2 dB (NTSC), 75 Ω
  Y/C IN: Loop-through Mini DIN 4-pin
    Y(luminance): 1.0 Vp-p ± 2 dB sync negative, 75 Ω
    C(chrominance): Burst 0.3 Vp-p ± 2 dB (PAL), 75 Ω or 0.286 Vp-p ± 2 dB (NTSC), 75 Ω
AUDIO IN[*3]: Phono, stereo, 500 mV rms, impedance more than 47 kΩ
INPUT A
  Analogue RGB/Component: BNC × 5
    R/R-Y: 0.7 Vp-p ± 2 dB positive, 75 Ω
    G: 0.7 Vp-p ± 2 dB positive, 75 Ω
    G with sync/Y: 1.0 Vp-p ± 2 dB sync negative, 75 Ω
    B/B-Y: 0.7 Vp-p ± 2 dB positive, 75 Ω
    SYNC/HD
      Composite sync: 0.6 - 8 Vp-p high impedance, sync positive/negative
      Horizontal sync: 0.6 - 8 Vp-p high impedance, sync positive/negative
  VD
    Vertical sync: 0.6 - 8 Vp-p high impedance, sync positive/negative
  HDTV[*4] (Y/P_B/P_R): BNC
    Y: 1.0 Vp-p ± 2 dB positive, 75 Ω,
    Tri-level sync: ±0.3 Vp-p
    Bi-level sync: 0.3 Vp-p
    P_B/P_R: ±0.35 Vp-p ± 2 dB positive, 75 Ω
  HDTV[*4] (GBR): BNC
    G with sync: 1.0 Vp-p ± 2 dB, 75 Ω,
    Tri-level sync: ±0.3 Vp-p
    Bi-level sync: 0.3 Vp-p
    B/R: 0.7 Vp-p ± 2 dB positive, 75 Ω
  Audio IN: Phono, stereo, 500 mV rms, impedance more than 47 kΩ
AUDIO OUT: Phono, Max. 1 V rms when input is 500 mV rms, impedance more than 1 kΩ
INPUT B/C: Open for optional IFB board
CONTROL S IN/ PLUG IN POWER: Stereo mini jack 5 Vp-p, Plug in power DC 5 V maximum output 60 mA
CONTROL S OUT: Stereo mini jack 5 Vp-p
REMOTE
  RS-232C/RS-422A[*5]: D-sub 9-pin (female)
  PJ COM[*6]: D-sub 9-pin (2) (female)
Trig: Mini jack
Power ON: 12 V, output impedance 4.7 kΩ
Power OFF: 0 V

Safety Regulations: EN 60 950 (TÜV), CE, C-tick

*1 ANSI is a measuring method of the American National Standards Institute ANSI IT7.228.
*2 Laser Type: Class II
Wavelength: 645 nm
Output: I mW
*3 With the optional IFB-X2000E installed in the VPL-X2000E.
*4 The VPL-X2000E supports 1125/60/2:1 and 1125/59.94/2:1(SMPTE-240M/274M) HDTV systems.
*5 RS-232C/RS-422A selectable.
*6 PJ COM complies with RS-485.

VPL-X600E MkII/X600M MkII

(PAL/NTSC/SECAM/NTSC4.43/PAL-M)

•LCD (Liquid Crystal Display)-based portable presentation projector •Three TFT LCD panels for a total of 2,359,296 pixels (786,432 pixels × 3) •120 W UHP lamp incorporated •A remarkable high output of 600 ANSI lumen*1 •Excellent uniformity and accurate colour reproduction assured with advanced technologies including bilinear interpolation •Handles VGA, SVGA, XGA, SXGA*2 with a horizontal frequency of 15, 24 to 80 kHz, composite video, Y/C video and component video signals •Unique APA (Auto Pixel Alignment) function •Lightweight, compact magnesium diecast body •Seven language on-screen display •Grip-contoured remote commander RM-PJM600 with laser pointer and mouse control function. •Desk top or ceiling mounted projection capabilities •Can be used with screens from 40 to 300 inches in size •Built-in three-speaker stereo

Supplied Accessories:
- Remote Commander RM-PJM600
- Video Signal Cable
  - SMF-401 (2 m) (1): HD D-sub 15-pin to HD D-sub 15-pin Cable
- Macintosh Adapter (1)
- Mouse Cables (2 m)
  - SIC-S20/S21/S22: for connection to Mac, Serial, PS/2
- Audio Visual Cable (1.5 m)
- AA size battery (2)
- Front Cover
- Lens Cap
- Strap for Remote Commander
- Air Filter
- AC power Cord
- Operating manual
- Quick Reference Card
- Installation Manual for Dealers
- Warranty Card

Optional Accessories:
- Projector Lamp (for replacement) LMP-600*3
- Suspension Support PSS-600
- Carrying Case VLC-600*3
- Remote Control Receiver RM-PJ10
- Video Signal Cable
  - SMF-400: D-sub HD 15-pin to 5 BNC Cable
  - SMF-401: D-sub HD 15-pin to D-sub HD 15-pin Cable
- Signal Cable
  - SMF-402: D-sub HD 15-pin to Phono (3) Cable
- Mouse Cable
  - SIC-S20: for Mac
  - SIC-S21: for Serial
  - SIC-S22: for PS/2
- Projection Lens
  - VPLL-ZM100 (long focal, 2 times zoom lens)
  - VPLL-FM30 (short focal, fixed lens)
  - VPLL-FM20 (short focal, fixed lens)
- Screen
  - VPS-100FH: 100-inch Flat Screen*3
  - VPS-120FH: 120-inch Flat Screen*3
  - VPS-80C: 80-inch Portable Screen*3

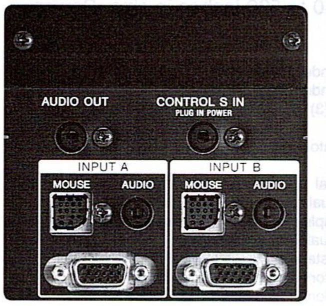
Specifications

Optical

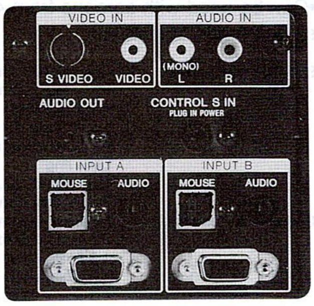
Projection system:	3 LCD panels, 1 lens, projection system
LCD panel:	1.3-inch TFT LCD panel, 2,359,296 pixels (786,432 pixels × 3)
Projection lens:	1.3 times zoom lens, 13 element all glass, Multi-coated F 2.5 to 3.0/f = 50 to 65 mm
Lamp:	120 W UHP
Screen coverage:	40-inch to 300-inch
Light output:	ANSI 600 lm
Throwing distance:	40-inch: 1490 to 1890 mm (58$^{3}/_{4}$ to 74$^{1}/_{2}$ inches) 80-inch: 3060 to 3860 mm (120$^{1}/_{2}$ to 152 inches) 100-inch: 3850 to 4840 mm (151$^{5}/_{8}$ to 190$^{5}/_{8}$ inches) 200-inch: 7780 to 9770 mm (306$^{3}/_{8}$ to 384$^{3}/_{4}$ inches) 300-inch: 11710 to 14700 mm (461$^{1}/_{8}$ to 578$^{3}/_{4}$ inches)

General

Colour system:	PAL/NTSC/SECAM/NTSC4.43/PAL-M automatically/manually selected
Resolution:	Video: 750 TV lines, RGB: 1024 × 768 pixels
Acceptable signal:	fH: 15, 24 to 81 kHz, fV: 43 to 85 Hz
Heat dissipation:	750.7 BTU



VPL-X600E



VPL-X600M

Speaker:	Wide frequency range 3 speaker system Woofer: 57 mm (2 1/4") diameter, max. 1 W Tweeter: 28 mm (1 1/8") diameter, max. 0.25 W (2) (stereo)
Power requirements:	AC 100 to 120 V/220 to 240 V, 50/60 Hz
Power consumption:	Max. 220 W, Stand by: 2 W
Dimension:	333 (W) × 120 (H) × 291 (D) mm (13$^{1}/_{8}$ × 4$^{3}/_{4}$ × 11$^{1}/_{2}$ inches) — without lens, foot, or protuberance 339 (W) × 136 (H) × 332 (D) mm (13$^{3}/_{8}$ × 5$^{3}/_{8}$ × 12$^{3}/_{4}$ inches),
Mass:	Approx. 5.8 kg (12 lb 13 oz)
Operating temperature:	0° to 40°C (32° to 104°F)
Operating humidity:	35 to 85 %

Input/Output

VIDEO IN:	Composite video: Phono type 1 Vp-p ± 2 dB sync negative, 75 Ω S VIDEO: Mini-DIN 4-pin Y(luminance): 1 Vp-p ± 2 dB sync negative. 75Ω C(chrominance): Burst 0.286 Vp-p ± 2 dB (NTSC), 75Ω, 0.3 Vp-p ± 2 dB (PAL), 75Ω
Audio IN:	Phono type (2) stereo, 500 mV rms, impedance more than 47 kΩ
INPUT A/INPUT B:	HD D-sub 15 pin (Female): Analog RGB/Component: R/R-Y: 0.7 Vp-p ± 2 dB, 75 Ω G/Y: 0.7 Vp-p ± 2 dB, 75 Ω G with sync: 1 Vp-p ± 2 dB sync negative, 75 Ω B/B-Y: 0.7 Vp-p ± 2 dB, 75 Ω SYNC: C sync/HD: Composite sync: 1-5 Vp-p high impedance, positive/negative Horizontal sync: 1-5 Vp-p high impedance, positive/negative VD: Vertical sync: 1-5 Vp-p high impedance, positive/negative Mouse IN: Square 13-pin (Female) Audio IN: Stereo mini jack, 500mV rms, impedance more than 47kΩ
AUDIO OUT (Variable out):	Stereo mini jack, max. 1 V rms, when an input signal is 500 mV rms, impedance less than 5 kΩ
CONTROL S IN/PLUG IN POWER:	Stereo mini jack, 5 Vp-p, Plug in power DC 5 V maximum output 60mA
Safety Regulations:	EN 60 950, CE, C-Tick, EN 60 825-1
Laser beam:	Laser type: Class 2 Wavelength: 670 nm Output: 1 mW

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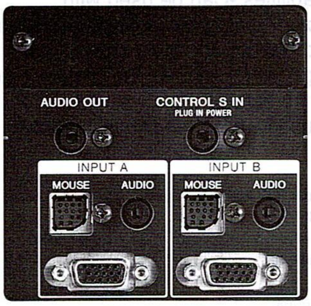
*1 ANSI is a measuring method of the American National Standards Institute IT 7.228
*2 Compressed SXGA signal is reproduced
*3 Not available in some areas.

VPL-S600E MkII/S600M MkII

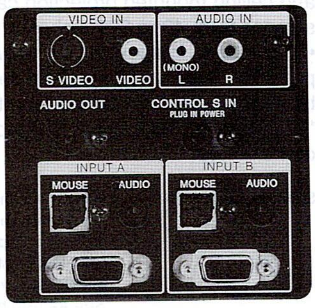
(PAL/NTSC/SECAM/NTSC$_{4.43}$/PAL-M)

SONY
LCD DATA PROJECTOR VPL-S600

•LCD (Liquid Crystal Display)-based portable presentation projector •Three TFT LCD panels for a total of 1,557,504 pixels (519,168 pixels × 3) •120 W UHP lamp incorporated •A remarkable high output of 600 ANSI lumen[*1] •Excellent uniformity and accurate colour reproduction assured with advanced technologies including bilinear interpolation •Handles VGA, SVGA, XGA[*2], SXGA[*2] with a horizontal frequency of 15, 24 to 80 kHz, composite video, Y/C video and component video signals •Unique APA (Auto Pixel Alignment) function •Lightweight, compact magnesium diecast body •Seven language on-screen display •Grip-contoured remote commander RM-PJM600 with laser pointer and mouse control function. •Desk top or ceiling mounted projection capabilities •can be used with screens from 40 to 300 inches in size •Built-in three-speaker stereo



VPL-S600E



VPL-S600M

Supplied Accessories:	Remote Commander RM-PJM600 Video Signal Cable SMF-401 (2 m) (1): HD D-sub 15-pin to HD D-sub 15-pin Cable Macintosh Adapter (1) Mouse Cables (2 m) SIC-S20/S21/S22: for connection to Mac, Serial PS/2 Audio Visual Cable (1.5 m) AA size battery (2) Front Cover Lens Cap Strap for Remote Commander Air Filter AC power Cord Operating manual Quick Reference Card Installation Manual for Dealers Warranty Card
Optional Accessories:	Projector Lamp (for replacement) LMP-600[*3] Suspension Support PSS-600 Carrying Case VLC-600[*3] Remote Control Receiver RM-PJ10 Video Signal Cable SMF-400: D-sub HD 15-pin to 5 BNC Cable SMF-401: D-sub HD 15-pin to D-sub HD 15-pin Cable] Signal Cable SMF-402: D-sub HD 15-pin to Phono (3) Cable Mouse Cable SIC-S20: for Mac SIC-S21: for Serial SIC-S22: for PS/2 Projection Lens VPLL-ZM100 (long focal, 2 times zoom lens) VPLL-FM30 (short focal, fixed lens) VPLL-FM20 (short focal, fixed lens) Screen VPS-100FH: 100-inch Flat Screen[*3] VPS-120FH: 120-inch Flat Screen[*3] VPS-80C: 80-inch Portable Screen[*3]

Specifications

Optical

Projection system:	3 LCD panels, 1 lens, projection system
LCD panel:	1.3-inch TFT LCD panel, 1,557,504 pixels (519,168 pixels × 3)
Projection lens:	1.3 times zoom lens, 13 element all glass, Multi-coated F 2.5 to 3.0/f = 50 to 65 mm
Lamp:	120 W UHP
Screen coverage:	40-inch to 300-inch
Light output:	ANSI 600 lm
Throwing distance:	40-inch: 1550 to 1960 mm ($61^{1}/_{8}$ to $77^{1}/_{4}$ inches) 80-inch: 3180 to 4010 mm ($125^{1}/_{4}$ to $157^{7}/_{8}$ inches) 100-inch: 4000 to 5040 mm ($157^{1}/_{2}$ to $198^{1}/_{2}$ inches) 200-inch: 8090 to 10160 mm ($318^{5}/_{8}$ to 400 inches) 300-inch: 12180 to 15280 mm ($479^{5}/_{8}$ to $601^{5}/_{8}$ inches)

General

Colour system:	PAL/NTSC/SECAM/NTSC$_{4.43}$/PAL-M automatically/manually selected
Resolution:	Video: 600 TV lines, RGB: 832 × 624 pixels
Acceptable signal:	fH: 15, 24 to 81 kHz, fV: 43 to 85 Hz
Heat dissipation:	750.7 BTU
Speaker:	Wide frequency range 3 speaker system Woofer: 57 mm ($2^{1}/_{4}$") diameter, max. 1 W Tweeter: 28 mm ($1^{1}/_{8}$") diameter, max. 0.25 W (2) (stereo)
Power requirements:	AC 100 to 120 V/220 to 240 V, 50/60 Hz
Power consumption:	Max. 220 W, Stand by: 2 W
Dimension:	333 (W) × 120 (H) × 291 (D) mm ($13^{1}/_{8}$ × $4^{3}/_{4}$ × $11^{1}/_{2}$ inches) — without lens, foot, or protuberance 339 (W) × 136 (H) × 332 (D) mm ($13^{3}/_{8}$ × $5^{3}/_{8}$ × $12^{3}/_{4}$ inches),
Mass:	Approx. 5.8 kg (12 lb 13 oz)
Operating temperature:	0° to 40°C (32° to 104°F)
Operating humidity:	35 to 85 %

Input/Output

VIDEO IN:	Composite video: Phono type 1 Vp-p ± 2 dB sync negative, 75 Ω S VIDEO: Mini-DIN 4-pin Y(luminance): 1 Vp-p ± 2 dB sync negative. 75 Ω C(chrominance): Burst 0.286 Vp-p ± 2 dB (NTSC), 75 Ω, 0.3 Vp-p ± 2 dB (PAL), 75 Ω
Audio IN:	Phono type (2) stereo, 500 mV rms, impedance more than 47 kΩ
INPUT A/INPUT B:	HD D-sub 15 pin (Female): Analog RGB/Component: R/R-Y: 0.7 Vp-p ± 2 dB, 75 Ω G/Y: 0.7 Vp-p ± 2 dB, 75 Ω G with sync: 1 Vp-p ± 2 dB sync negative, 75 Ω B/B-Y: 0.7 Vp-p ± 2 dB, 75 Ω SYNC: C sync/HD: Composite sync: 1-5 Vp-p high impedance, positive/negative Horizontal sync: 1-5 Vp-p high impedance, positive/negative VD: Vertical sync: 1-5 Vp-p high impedance, positive/negative Mouse IN: Square 13-pin (Female) Audio IN: Stereo mini jack, 500mV rms, impedance more than 47kΩ
AUDIO OUT (Variable out):	Stereo mini jack, max. 1 V rms, when an input signal is 500 mV rms, impedance less than 5 kΩ
CONTROL S IN/PLUG IN POWER:	Stereo mini jack, 5 Vp-p, Plug in power DC 5 V maximum output 60 mA
Safety Regulations:	EN 60 950, CE, C-Tick, EN 60 825-1
Laser beam:	Laser type: Class 2 Wavelength: 670 nm Output: 1 mW

[*1] ANSI is a measuring method of the American National Standards Institute IT 7.228
[*2] Compressed XGA and SXGA signal are reproduced
[*3] Not available in some areas.

VPL-S500E/S500M (PAL/NTSC/SECAM/NTSC4.43)

•LCD (Liquid Crystal Display)-based portable presentation projector •Three p-Si TFT LCD panels for a total of 1,557,504 pixels (519,168 pixels × 3 panels) •250W metal halide lamp incorporated •A high light output of 450 ANSI lumen •Excellent uniformity and accurate colour reproduction assured with advanced technologies •Accepts VGA, SVGA, XGA* with a horizontal frequency of 15.24 to 57 kHz composite video, Y/C video and component video signals •Light in weight and compact design for easier handling •On-screen menu with a choice of seven languages for adjustment/operation •Supplied wired/wireless remote commander RM-PJM500 controls all the projector functions such as set-up adjustments and operational functions •Mouse function operation for remote control of the connected computer source •Desk top mounted projection and ceiling mounted projection capabilities •Can be used with screens from 40 to 300 inches in size •Power saving mode available •Reproduced images can be viewed without any disturbance of the projector, thanks to the optical design which enables the projector to be installed lower in comparison to the screen

*Compressed XGA signal is reproduced while preserving the detail of the image.

Supplied Accessories:	Remote commander RM-PJM500 Mouse receiver RM-PJ21 HD D-sub 15-pin (male) to HD D-sub 15-pin (male) cable VGA-Macintosh adapter Ventilation cover Size AA (R6) batteries AC power cord Operating manual
Optional accessories:	Signal Interface cable SIC-20A/20C/21/22 Remote control receiver RM-PJ10 Projector lamp (for replacement) PK-PJ500*2 Projection lens VPLL-FM30 Projection lens VPLL-ZM100 Carrying case VLC-500*2 Suspension support PSS-500 Signal adapter ADP-10 (HD D-sub 15-pin to HD D-sub 9-pin for SIC Cable) HD D-sub 15-pin to 5 BNC cable SMF-400 100-inch flat screen VPS-100FH*2 120-inch flat screen VPS-120FH*2

Specifications

Optical

Projection system:	3 LCD panels, 1 lens, projection system 1.3-inch p-Si TFT LCD panel, 1,5567,504 pixels (519,168 pixels × 3)
Projection lens:	1.5 times zoom lens f50 to 75 mm/F 2.5 to 3.1
Lamp:	250W Metal halide lamp
Screen coverage:	40 to 300-inch
Light output:	ANSI*3 450lm
Throwing distance:	40-inch: 1470 to 2190 mm (57⁷/₈ to 86¹/₄ inches) 80-inch: 3040 to 4450 mm (119³/₄ to 175¹/₄ inches) 100-inch: 3820 to 4450 mm (150¹/₂ to 219³/₄ inches) 120-inch 4600 to 6720 mm (181¹/₈ to 264⁵/₈ inches) 200-inch 7730 to 11250 mm (304³/₈ to 443 inches) 300-inch 11640 to 16910 mm (458³/₈ to 655³/₄ inches)

General

Colour system:	PAL/NTSC/SECAM/NTSC4.43
Resolution:	Video: 600TV lines RGB: 832 × 624 pixels
Compatible signals:	15k RGB/Component (NTSC base) fH: 15.734kHz, fV: 59.94Hz 15k RGB/Component (PAL/SECAM base) fH: 15.625kHz, fV: 50.0Hz VGA mode1 (640 x 350dots) fH: 31.468kHz, fV: 70.086Hz VGA mode2 (640 x 400dots) fH: 31.468kHz, fV: 70.086Hz VGA mode3 (640 x 480dots) fH: 31.468kHz, fV: 59.94Hz VGA VESA 72Hz (640 x 480dots) fH: 37.86kHz, fV: 72.809Hz VGA VESA 75Hz (640 x 480dots) fH: 37.5kHz, fV: 75Hz VGA VESA 85Hz (640 x 480dots) fH: 43.269kHz, fV: 85.008Hz Macintosh 13-inch mode (640 x 480 dots) fH: 35kHz, fV: 66.7Hz Macintosh 16-inch mode (640 x 480 dots) fH: 49.724kHz, fV: 74.55Hz S VGA VESA 56Hz (800 x 600dots) fH: 35.156kHz, fV: 56.25Hz S VGA VESA 60Hz (800 x 600dots) fH: 37.879kHz, fV: 60.32Hz S VGA VESA 72Hz (800 x 600dots) fH: 48.077kHz, fV: 72.188Hz S VGA VESA 75Hz (800 x 600dots) fH: 46.875kHz, fV: 75.0Hz S VGA VESA 85Hz (800 x 600dots) fH: 53.674kHz, fV: 85.061Hz XGA VESA 60Hz (1024 x 768dots) fH: 48.363kHz, fV: 60Hz*3 XGA VESA 70Hz (1024 x 768dots) fH: 56.476kHz, fV: 70.069Hz*3
Horizontal frequency range of computer input:	RGB: 15kHz (S on G/Composite sync), 24 to 57kHz
Speaker:	Max. 2W + 2W, 7 × 4cm stereo
Power requirements:	AC220 to 240V, 50/60Hz
Power consumption:	Max. 350W (Standby mode: 10W)
Heat dissipation:	1194.4BTU
Mass:	Approx. 10kg (22lb 1oz)
Operating temperature:	0˚C to 40˚C (32˚F to 104˚F)
Operating humidity:	35% to 85%
Storage temperature:	-20˚C to 60˚C (–4˚F to 149˚F)
Storage humidity:	10% to 90%
Dimensions:	368(W) × 176(H) × 444(D) mm (14½ × 7 × 17½ inches)

Input/Output

VIDEO IN:	
Composite video:	BNC, 1Vp-p±2dB sync negative 75Ω
S VIDEO:	Mini DIN 4-pin
Y (luminance):	1Vp-p±2dB sync negative 75Ω
C (chrominance):	Burst 0.286Vp-p±2dB (NTSC), 75Ω 0.36Vp-p±2dB (PAL), 75Ω
Audio IN:	Phono (× 2) 500mVrms, stereo, impedance more than 47kΩ
INPUT A:	
Analog RGB/Component:	HD D-sub 15-pin (female)
R/R-Y:	0.7Vp-p±2dB positive, 75Ω
G:	0.7Vp-p±2dB positive, 75Ω
G with sync/Y:	1Vp-p±2dB sync negative, 75Ω
B/B-Y:	0.7Vp-p±2dB positive, 75Ω
SYNC/HD:	
Composite sync:	0.6-8Vp-p high impedance, sync positive/negative
Horizontal sync:	0.6-8Vp-p high impedance, sync positive/negative
VD:	
Vertical sync:	0.6-8Vp-p high impedance, sync positive/negative
AUDIO IN:	Stereo minijack 500mVrms, impedance more than 47kΩ
AUDIO OUT (variable out):	Phono (× 2) Max. 1Vrms, when an input is 500mVrms, impedance less than 5kΩ
CONTROL S IN/PLUG IN POWER:	Stereo minijack 5Vp-p, Plug in power, DC 5V, maximum output 60mA
Safety Regulations:	EN60 950 (TÜV), CE, C-Tick

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*1 VGA is a registered trademark of International Business Machines Corporation. Macintosh is a trademark of Apple Computer Inc.
*2 Some items are not available in some areas. For details, please consult your nearest Sony office.
*3 ANSI is a measuring method of American National Standards Institute ANSI IT7.228
*4 Compressed XGA signal is reproduced.

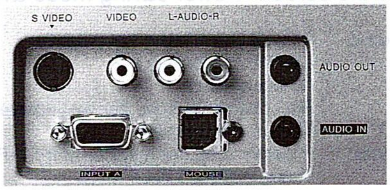
VPL-SC50E/SC50M (PAL/NTSC/SECAM/NTSC$_{4.43}$/PAL-M)

LCD Data Projector

•LCD (Liquid Crystal Display)-based video projector •Three LCD panels for a total of 1,440,000 pixels (480,000 pixels × 3 panels) •120 W UHP lamp •High light output of 500 ANSI[*1] lumens •Excellent uniformity and accurate colour reproduction assured with advanced technologies •Built-in zoom lens •Accepts VGA, SVGA and XGA[*2] with a horizontal frequency of 24 to 57 kHz •Extremely light-weight at just 3.7 kg - a truly portable projector •On-screen menus with a choice of seven languages for adjustment/operation •Supplied remote commander RM-PJM600 controls all the projector functions •Mouse function operation for remote control of the connected computer source •Can be used with screens from 40 to 150 inches in size •Built-in stereo speakers

SONY
SONY
LCD DATA PROJECTOR VPL-SC50

Supplied accessories:	Remote commander RM-PJM600 HD D-sub 15-pin to HD D-sub 15-pin cable Macintosh® adaptor Mouse cable (2 m) Audio-visual cable (1.5 m) AA batteries (2) Strap for remote commander AC power cord Air filter Operating instructions Quick reference sheet
Optional accessories:	Projector lamp (for replacement) LMP-600 Carrying case VLC-SC50 Interface selector IFU-SC50 HD D-sub 15-pin to 5 BNC cable SMF-400 HD D-sub 15-pin to HD D-sub 15-pin cable SMF-401 HD D-sub 15-pin to RCA PIN x 3 cable SMF-402 Mouse cable SIC-S20 (Mac) /S21 (Serial) /S22 (PS/2) Signal adaptor ADP-10 Signal interface cable SIC-20A/20C/22 80-inch portable screen VPS-80C 50-inch portable screen VPS-50C



Specifications

Optical	
Projection system:	3 LCD panels, 1 lens projection system
Picture tube:	0.9-inch TFT LCD panel, 1,440,000 pixels (480,000 pixels × 3)
Projection lens:	1.2 times zoom lens, F2.5 to 2.79/f=32.8 to 39.4mm
Lamp:	120 W UHP
Screen coverage:	40-inch to 150-inch (measured diagonally)
Light output:	500 ANSI lumens[*1]
General	
Colour system:	PAL, NTSC, SECAM, NTSC$_{4.43}$, PAL-M (automatically/manually selected)
Resolution:	600 TV lines (video); 800 × 600 pixels (RGB)
Scanning frequency:	RGB: fH 24-57 kHz; fV: 50-85 Hz; 15 K component 50/60 Hz system, composite video, Y/C video
Speaker:	Max. 0.5 W × 2 (stereo)
Power requirements:	AC 100 to 120 V, 220 to 240 V, 50/60 Hz
Power consumption:	190 W (max), 2 W (standby)
Heat dissipation:	648.37 BTU
Dimensions:	107 (W) × 218 (H) × 314 (D) mm (4 ¼ × 8 ¼ × 12 ⅜ inches)
Mass:	3.7 kg (8 lb 2 oz)
Operating temperature:	0 to 40°C (32 to 104°F)
Operating humidity:	35 to 85%
Input/Output	
VIDEO IN:	
Composite:	Phono type, 1 Vp-p ± 2 dB, sync negative, 75Ω
S video:	4-pin mini DIN;
Y (luminance):	1 Vp-p ± 2 dB, sync negative, 75Ω
C (chrominance):	Burst 0.3 Vp-p ± 2 dB (PAL), 75Ω; 0.286 Vp-p ± 2 dB (NTSC), 75Ω
INPUT A:	HD D-sub 15-pin (female)
Analogue RGB/Component	
R/R-Y:	0.7 Vp-p ± 2 dB positive, 75Ω
G:	0.7 Vp-p ± 2 dB positive, 75Ω
G with sync/Y:	1 Vp-p ± 2 dB positive, 75Ω
B/B-Y:	0.7 Vp-p ± 2 dB positive, 75Ω
SYNC:	
C sync/HD	
Composite sync:	1-5 Vp-p high impedance, sync positive/negative
Horizontal sync:	1-5 Vp-p, high impedance, sync positive/negative
VD:	
Vertical sync:	1-5 Vp-p, high impedance, sync positive/negative
Mouse IN:	square 13-pin (female)
Audio IN:	Stereo mini jack, 500 mV rms, impedance less than 5 kΩ
AUDIO OUT: (variable out)	Stereo mini jack, max. 1 V rms, when an input signal is 500 mV rms, impedance less than 5 kΩ
Laser beam	
Laser type:	Class II
Wavelength:	670 nm
Output:	1 mW
Safety Regulations:	EN 60 950, CE, C-Tick, EN 60 825-1

[*1] ANSI is a measuring method of the American National Standards Institute IT7.228

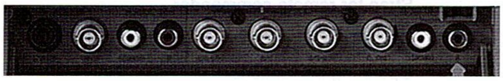
[*2] Compressed XGA signal is reproduced while preserving the detail of the image.

VPL-W400QM (PAL/NTSC/SECAM/NTSC4.43/PAL-M)

LCD Video Projector

•LCD (Liquid Crystal Display)-based video projector •Three 16:9 p-Si TFT LCD panels for a total of more than 1,500,000 pixels (3 panels of 1,068 × 480 pixels) •250W metal halide lamp incorporated •Remarkable light output of 400 ANSI lumen*1 •Excellent uniformity and accurate colour reproduction assured with advanced technologies •Accepts component (Y/R-Y/B-Y), RGB, Y/C video, composite video and HDTV*3 signals •Signals with 4:3 aspect ratio can be presented as 4:3 or in four different 16:9 modes: full, zoom, sub title and wide zoom •Letter box signals are reproduced automatically with a 16:9 aspect ratio in the Auto wide ON mode •Quick retrieval of desired picture conditions with the memory function •On-screen menu with a choice of seven languages for adjustment/operation •Supplied wired/wireless remote commander RM-PJM500 controls major projector functions such as set-up adjustments and operational functions •Light in weight and compact design for easy handling •Desk top mounted projection and ceilings mounted projection capabilities •Can be used with screens from 41 to 300 inches in size (16:9) •Reproduced images can be viewed without any disturbance of the projector, thanks to the optical design which enables the projector to be installed lower in comparison to the screen •Power saving mode available

AUDIO OUT
L
R
CONTROL S
IN
PLUG IN POWER
OUT
TRIG



Supplied accessories:	Remote commander RM-PJM500 AA (R6) size battery (×2) AC power cord BNC (male) to Phono (female) adapter Operating instructions
Optional accessories:	Projector lamp (for replacement) PK-PJ500*3 Projection lens VPLL-FM100 Carrying case VLC-500 Suspension support PSS-500 Signal interface cable SIC-10

Specifications

Optical

Projection system:	3 LCD panels, 1 lens, projection 1.35-inch p-Si TFT LCD panel, 1,538,640pixels (512,880pixels × 3 panels)
Projection lens:	1.6 times zoom lens f50 to 80mm/F2.5 to 3.1
Lamp:	250W DC metal halide lamp
Screen coverage:	41 to 300-inch (aspect ratio: 16:9) 34 to 245-inch (aspect ratio: 4:3)
Light output:	ANSI *1: 400lm (16:9)
Throwing distance:	
<16:9>	41-inch: 1490 to 2280mm (58¾ to 89⅞ inches) 80-inch: 3000 to 4570mm (118⅛ to 180 inches) 100-inch: 3770 to 5740mm (148½ to 226 inches) 120-inch: 4540 to 6910mm (178¾ to 272⅛ inches) 200-inch: 7640 to 11590mm (300⅞ to 456⅜ inches) 300-inch: 11500 to 17450mm (452⅞ to 687⅛ inches)
<4:3>	34-inch: 1510 to 2320mm (59½ to 91⅜ inches) 80-inch: 3690 to 5620mm (145⅜ to 221⅜ inches) 100-inch: 4630 to 7050mm (182⅜ to 277⅝ inches) 120-inch: 5580 to 8480mm (219¾ to 333⅞ inches) 200-inch: 9370 to 14210mm (369 to 559½ inches) 245-inch: 11500 to 17440mm (452⅞ to 686⅝ inches)

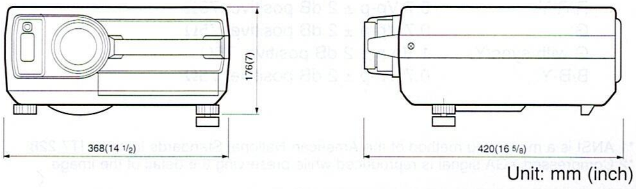
General

Colour system:	PAL/NTSC/SECAM/NTSC4.43/PAL-M automatically selected
Resolution:	600TV lines
Speakers:	Max. 2W+2W, 7 × 4cm stereo
Power requirements:	AC 220 to 240V, 50/60Hz
Power consumption:	Max.: 350W, Stand by: 10W
Heat dissipation:	1194.4BTU
Mass:	Approx. 10kg (22 lb)
Operating temperature:	0 to 40°C (32 to 104°F)
Operating humidity:	35 to 85%
Storage temperature:	-20 to 60°C (-4 to 140°F)
Storage humidity:	10 to 90%

Inputs/Outputs

VIDEO:	
Composite video:	BNC 1Vp-p ±2dB sync negative, 75Ω
S VIDEO:	Mini DIN 4-pin
Y (luminance):	1Vp-p ±2dB sync negative, 75Ω
C (chrominance):	0.3Vp-p ±2dB (PAL), 75Ω Burst 0.286Vp-p 2dB (NTSC), 75Ω
Audio IN:	Phono (×2) 500mVrms, stereo, impedance more than 47kΩ
INPUT A	BNC × 4
Analogue RGB/Component:	
R/R-Y:	0.7Vp-p ±2dB positive, 75Ω
G:	0.7Vp-p ±2dB positive, 75Ω
G with sync/Y:	1Vp-p ±2dB sync negative, 75Ω
B/B-Y:	0.7Vp-p ±2dB positive, 75Ω Composite sync: 0.6 to 8Vp-p, high impedance, sync positive/negative
HDTV*2 (Y/PB/PR):	
Y:	1Vp-p ±2dB, 75Ω Tri-level sync: 0.3Vp-p, Bi-level sync: 0.3Vp-p
PB/PR:	0.35Vp-p ±2dB, 75Ω
HDTV*2 (GBR):	
G with sync:	1Vp-p ±2dB, 75Ω Tri-level sync: 0.3Vp-p, Bi-level sync: 0.3Vp-p
B/R:	0.7Vp-p ±2dB, 75Ω
Audio IN:	Phono (×2) Stereo, 500mV rms, impedance more than 47kΩ
AUDIO OUT: (Variable out)	Phono (×2) Max. 1Vrms, when input is 500mV rms, impedance less than 5kΩ
CONTROL S:	
IN PLUG IN POWER:	Stereo mini jack 5Vp-p, Plug in power DC 5V maximum output 60mA
OUT:	Stereo mini jack 5Vp-p
TRIG:	Mini jack Power ON: DC 5V output impedance 4.7kΩ Power OFF: 0V

Dimensions



Unit: mm (inch)

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*1 ANSI is a measuring method of American National Standards Institute ANSI IT7.215.
*2 HDTV: 1125/60 interlaced HDTV studio standards Institute system.
*3 PK-PJ500 is not available in some areas. For details, please consult your nearest Sony office.

VID-P50

Video Presentation Stand

•Clear image reproduction with a high horizontal resolution of over 450 TV lines •12 times powered zoom capability •Fully automatic functions (auto focus, auto iris, auto white balance) for easy operation •Lighting unit as standard •Flip up and tilt camera head up to 90 degrees to capture images within the room •One-touch detachable close-up lens •Video output and S-video (Y/C) output connector •Document area is (300 × 300) enabling the use of A4 or letter size •Light weight, easy-to carry design

Supplied accessories:	AC cable Operation manual

Specifications

General

Pick up device:	1/3-inch Interline transfer CCD × 1
Picture element:	752 (H) × 582 (V)
Resolution:	More than 450 TV lines (horizontal)
S/N ratio:	More than 48 dB
Lens:	F1.8 f=5.4~64.8 mm (×12 power zoom)
Shooting area:	300 × 225 mm (WIDE) (11⅞ × 10⅛ inches) 25 × 19 mm (TELE) (1 × ¾ inches)
Focus:	Full Auto
Iris:	Full Auto
Lighting:	4W fluorescent lamp (1)
White balance:	Full Auto
Outputs:	Video (Phono connector (1)) 1Vp-p sync negative S-video (4 pin mini DIN (1)) Y: 1Vp-p, 75 Ω sync negative C: 0.286Vp-p, 75 Ω (NTSC) C: 0.300Vp-p, 75 Ω (PAL)
Dimensions:	335 (W) × 525 (H) × 355(D) mm (13¼ × 20¾ × 14 inches) <when folded> 335 (W) × 70 (H) × 550 (D) mm (13¼ × 2⅞× 21¾ inches)
Mass:	4.1 kg (9 lb 1 oz)
Power requirement:	AC 230 V 50 Hz 10 W

VID-P110

Video Presentation Stand

•Three-dimensional objects just as well as flat objects such as charts, drawings, books etc. can be displayed on TV monitors and projectors •1/3-inch CCD camera provides a high horizontal resolution of over 450 TV lines •Auto focus, auto iris control and auto white balance •Two pattern memories •One-touch, swing out, close-up lens •12 times powered zoom capability •Flip up, pan and tilt camera head •Dual arm lights, each with two 9 w florescent lamps •Built-in back light function •Input selector •S-video input / output connections (Y/C separate/mix circuit) •Black and white mode •RS-232C interface for control from a PC •Light-weight, compact and easy-to carry design

Supplied accessories:	AC power code (1) Operation manual (1) Interface manual (1)

Specifications

Pick-up device:	1/3 inch interline transfer, CCD
Picture element:	752 (H) × 582 (V)
Resolution:	More than 450 TV lines
Shooting Area:	325 × 240 mm (max.) 29 × 22 mm (min.)
Lens:	F=1.8 to 2.7, f=5.4 to 64.8 mm
Output selector:	Camera/Video 1/Video 2
Arm light:	9 W twin-fluorescent lamp (2)
Built-in backlight:	2.5 W cold cathode ray lamp (2)
Input connectors:	
Video in:	Phono (2) 1Vp-p, 75 Ω, sync negative
S video in:	4-pin mini DIN (2) Y: 1 Vp-p, 75 Ω sync negative C: 0.300 Vp-p, 75 Ω
Audio in:	Phono (2) pair, stereo Input impedance: 47k Ω Level: -10 dBu, unbalanced
Mic in:	Standard jack (1) Input impedance: 3.3k Ω Level: -60 dBu, unbalanced
Output connectors:	
Video out:	Phono (1), BNC (1) 1Vp-p, 75 Ω, sync negative
S video out:	4-pin mini DIN (1) Y: 1 Vp-p, 75 Ω sync negative C: 0.300 Vp-p, 75 Ω
Audio out:	Phono (1) pair, stereo Output impedance: less than 600 Ω Level: -10 dBu, unbalanced
RS-232C connector:	D-sub 9-pin, male Baud rate: 9600 bps
Power requirements:	230 V AC, 50/60 Hz
Power consumption:	30 W
Mass:	8.0 kg (17 lb 10 oz)
Dimensions:	446 (W) × 583 (H) × 622 (D) mm (17 ⅝ × 23 × 24 ½ inches) 446 (W) × 166 (H) × 634 (D) mm (17 ⅝ × 6 ⅝ × 25 inches)

VID-P300

Video Presentation Stand

•Three-dimensional objects, charts, drawings, transparent sheets, slides etc. can be displayed on TV monitors and projectors •High horizontal resolution of 720 TV lines with 3 chip CCD colour video camera •RGB signal output for high picture quality •12-times powered zoom capability •Gen lock •The camera head angle change capability •Built-in back light function for transparent sheets, slides or posi films •RS-232C interface port for control from external computer •Can be folded for portability

Supplied accessories:	AC cable Operation manual

Specifications

General

Pick-up device:	1/2 inch interline transfer CCD (3 chip)
Picture element:	752 (H) × 582 (V)
Horizontal resolution:	More than 720 TV lines
S/N ratio:	More than 58 dB
Lens:	F1.4, f=7.5-90 mm (×12 powered zoom)
Shooting area:	Zoom wide. 342 × 257 mm (133/6 × 101/8 inches) Zoom tele. 31.5 × 23.5 mm (1$^{1}/_{4}$ × 1$^{5}/_{16}$ inches)
Focus:	Powered
Iris:	Auto/Manual
Lighting:	9W twin fluorescent lamp (2) for arm light 8W fluorescent lamp (2) for back light
B&W/colour:	Built-in (without RGB output)
Power requirement:	AC 230V
Power consumption:	36W
Dimensions:	572 (W) × 912 (H) × 620 (D) mm 446 (W) × 237 (H) × 740 (D) mm (when folded)
Mass:	Approx. 12.7 kg (26 lb 10 oz)

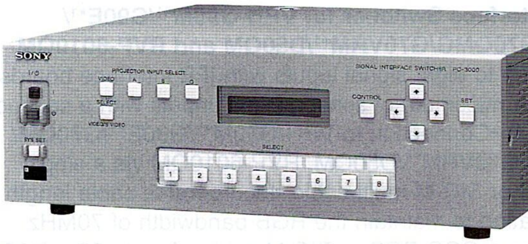
Inputs/outputs

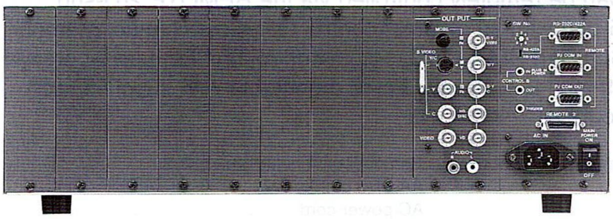
Inputs:	Gen lock: BNC (1), 75 Ω sync negative MIC: Phone (1), 3.3 kΩ, -60 dBu, unbalanced
Output:	Video: Phono (1), BNC (1), 1.0Vp-p sync negative S-video: 4-pin mini DIN (1) Y: 1.0Vp-p, 75 Ω sync negative C: 0.286Vp-p, 75 Ω RGB: BNC (4) RGB: 0.7Vp-p, 75 Ω SYNC: 2.0Vp-p, 75 Ω Audio: Phono (1), less than 600 Ω, -10 dBu, unbalanced
Control:	RS-232C interface port (D-sub 25-pin)

PC-3000

Signal Interface Switcher for VPH-G90E/G90M and VPL-X2000E/X2000M

•Provides eight slots for optional interface boards and one fixed output with 150 MHz cable compensation •Up to eight PC-3000 units can be connected, enabling up to 57 different signals to be connected in a system •RGB bandwidth of 300 MHz •Equipped with an RS-232C/RS422A communication port •Equipped with a PJ COM port, in accordance with RS-485 •Incorporates an LCD display in the front panel for easier setting and adjustments •Input selection of a connected projector, as well as the input selection of the PC-3000 itself, can be controlled via the front panel •Last channel memory •Can be easily controlled with optional remote commander RM-PJ3000S •Trig terminal to provide control of an integrated projection room •19-inch EIA standard rack mountable with supplied rack mount kit





Supplied accessories:	AC cable
	Rack mount kit for 19-inch EIA standard rack
	Operating instructions
	Terminator
Optional accessories:	Remote commander RM-PJ3000S
	9-pin remote control cable RCC-5G/10G/30G (for PJ COM and RS-422A)

Specifications

General

RGB bandwidth:	300 MHz -3 dB
Power requirements:	100 to 240 V, 50/60 Hz
Power consumption:	80 W
Dimensions:	424 (W) × 133 (H) × 420 (D) mm (16 $^{11}/_{16}$ × 5 $^{1}/_{4}$ × 16 $^{17}/_{32}$ inches)
Mass:	9.3 kg (20 lb 7 oz)

Outputs

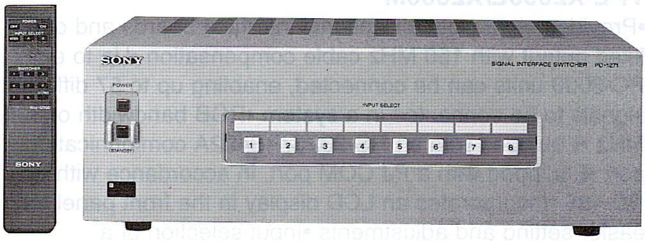
	BNC connector (8), DIN 4-pin (1)
Video signal:	Gain unity, impedance 75 Ω
Sync signal:	5 Vp-p (Impedance high) 1 Vp-p (Impedance 75 Ω)
Audio:	Gain unity, impedance 1 kΩ
Control S	
IN/	Stereo mini jack, 5 Vp-p
PLUG IN POWER:	DC 5 V maximum output 60 mA
OUT:	Stereo mini jack, 5 Vp-p
TRIG:	Mini jack Power ON: DC 12 V, output impedance 4.7 kΩ Power OFF: 0 V
Remote	
RS-232C/422A:	D-sub 9-pin (female)
PJ COM IN/OUT:	D-sub 9-pin (female)
Remote 2:	Half pitch 26-pin

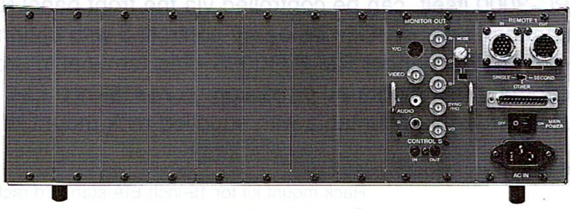
*With optional IFB-40, the PC-3000 is also compatible with other current projectors.

PC-1271M

Signal Interface Switcher for VPH-G90M*1/G90E*1/G70QM/G70QMG/G70VRM*1/D50QM and RVP-6010QM

•Accepts up to eight signal inputs with IFB interface boards installed (a maximum of sixteen signal inputs with a second PC-1271M) •Connection to VPH-G90M*1/G90E*1/G70QM/G70QMG/G70VRM*1/D50QM, RVP-6010QM via a single CCQ-BRS or SIC-M multi-cable •Incorporates cable length compensation to maintain the RGB bandwidth of 70MHz when using a CCQ-BRS or SIC-M cable of up to 50m (165 ft). With the cable length compensation function, the 150MHz RGB bandwidth is guaranteed for MONITOR OUT. (Compensation switch selectable according to cable length) •Can be remotely controlled via the REMOTE 2(D-sub 25-pin) with an external control unit •Last channel memory •Supplied RM-1270S remote control unit for easy operation •19-inch EIA standard rack mountable with supplied rack mount kit





Supplied accessories:	Remote control unit: RM-1270S AA Size battery (×2) AC power cord Rack mount with screws (one pair) Operation manual Input label (×2)
Optional accessories:	Interface Unit: IFU-1271M Interface Board*2: IFB-11/20/101/1000/1200/1301/3000 Signal Interface Cable: SIC-10/20A/20C/21/22

Specifications

General	
RGB bandwidth:	150MHz (-3dB)
Power requirements:	AC 220 to 240V, 50/60Hz
Power consumption:	Approx. 60W
Dimensions:	424(W) × 133(H) × 290(D) mm (16¾ × 5¼ × 11½ inches)
Mass:	8kg (17 lb 10 oz)
Inputs	
Input 1 to 8:	(open for optional IFB Series input modules)
Remote 1:	14-pin (male), from a second PC-1271M
Remote 2:	D-sub 25-pin (female) from the external control unit
Control S:	Loop-through Mini jack
Outputs	
Monitor out:	
Video:	BNC 1Vp-p, sync negative, 75Ω
Y/C:	4-pin mini DIN Y(luminance): 1Vp-p, sync negative, 75Ω C(chrominance): 0.3Vp-p (PAL), 0.286Vp-p (NTSC), 75Ω
R/B:	BNC 0.7Vp-p, 75Ω
G/Sync on G:	BNC 0.7Vp-p, 75Ω (Non-composite) 1Vp-p, sync negative, 75Ω (Composite)
HD/VD/HV:	BNC 1Vp-p, positive/negative, 75Ω
Audio:	Phono (stereo or monaural selectable) -5dBu, impedance 1kΩ
Remote 1:	14-pin (female), To VPH-G90M/G90E/G70QM/G70QMG/D50QM, RVP-6010QM or first PC-1271M

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*1 To connect PC-1271M requires IFB-40 and SIC-M cables
*2 IFB-1301 can be used with VPH-G70QM/G70QMG/D50QM, RVP-6010QM

2-5 Projector accessories

IFU-1271M

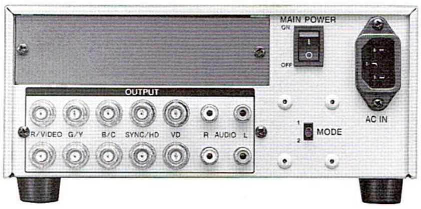
Interface Unit for VPH-G90E/G90M/G70QM/G70QMG/G70VRM/D50QM/D50HTM and RVP-6010QM

- One in/two out signal distributor with 100MHz bandwidth*
- Converts digital signal level to analogue signal level for output
- Sync output mode selection

Inputs:	(Open for an optional IFB Series input module)
Output:	BNC ×5 (×2) Phono (×2) (stereo or monaural selectable)
Bandwidth:	120MHz (-3dB)
Power requirements:	AC 220 to 240V, 50/60Hz
Dimensions:	180(W) × 105(H) × 185(D)mm (7⅛ × 4¼ × 7⅜ inches)
Mass:	3kg (6 lb 9.8 oz)
Supplied accessories:	AC power cord Operation manual

*The output signal from IFB-1000 is the same as the input. The output signal from IFB-1200 can be changed according to the selection switch on the board (component/RGB).

SONY
INTERFACE UNIT IFU-1271
POWER



IFU-SC50

Interface Unit for the VPL-SC50E/SC50M/S600E/S600M/X600E/X600M

- Two input, one output signal selector - allows two computers to be simultaneously connected to one projector
- Built-in mouse receiver for wireless mouse control

Inputs/Outputs	
INPUT 1/2:	HD D-sub 15-pin (female)
OUTPUT:	HD D-sub 15-pin (male)
Mouse IN:	Square 13-pin (female)
Audio IN/OUT:	Stereo mini jack
Frequency response:	Up to fH: 80 kHz (SXGA 1280 × 1024, fV: 75 Hz)
Cable length:	0.5 m (19 3/4 inches)
Dimensions:	108 (W) × 48.5 (H) × 108 (D) mm (4 ⅜ × 1 15/16 × 4 ⅜ inches)
Mass:	Approx. 370 g (13 oz)

IFB-12A

Interface Board for VPH-G90E/G90M/G70QM/G70QMG/D50QM, RVP-6010QM, VPL-X2000E/X2000M, PC-1271M/ 3000 and IFU-1271M

- Accepts analogue RGB, component (Y/R-Y/B-Y), HDTV (Y/PB/PR, GBR), composite video and Y/C video signals
- RGB bandwidth of 300 MHz -3 dB
- Cable compensation function for output signals (150 MHz)

Inputs/Outputs	
Video:	BNC (5)
Audio:	Phono (2) (stereo or monaural selectable)
Dimensions:	129 (W) × 35 (H) × 138 (D) mm (5 1/8 × 1 7/16 × 5 1/2 inches)
Mass:	Approx. 200 g (7 oz)

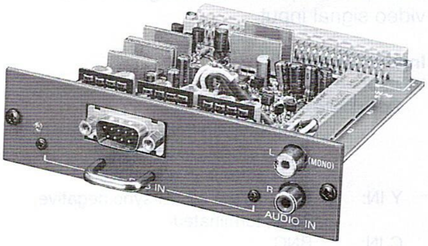
SYNC/HD
VD
/VIDEO
Y/C
IN
ON
123456
L
(MONO)
R
AUDIO

*For input only. Acceptable signals vary according to the connected projector.

IFB-20

Interface Board for VPH-G90E/G90M/G70QM/G70QMG/G70VRM/D50QM, RVP-6010QM, PC-1271M and IFU-1271M

Inputs	
RGB:	Analogue, D-sub 9-pin (male)
AUDIO:	Phono (stereo or monaural selectable)
Dimensions:	129(W) × 35(H) × 138(D) mm (5⅛ × 17/16 × 5½ inches)
Mass:	170g (6.0 oz)



*Not available is some areas. For further details, please contact your nearest Sony office.

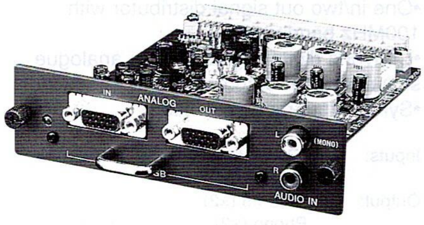
IFB-21

Interface Board for VPH-G90E/G90M/G70QM/G70QMG/G70VRM/D50QM, RVP-6010QM, VPL-X2000E/X2000M, PC-1271M and IFU-1271M

- RGB bandwidth of 150MHz

Inputs
RGB: Analogue, HD D-sub 15-pin
AUDIO: Phono
(stereo or monaural selectable)

Dimensions: 129(W) × 35(H) × 138(D)mm
(5⅛ × 1 7⁄16 × 5½ inches)
Mass: Approx. 200g (7 oz)

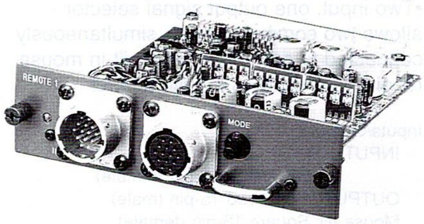


IFB-40

Interface Board for VPH-G90E/G90M/G70QM/G70QMG/D50QM and PC-3000

- 14-pin multi-connector input/output board (for SIC-M/CCQ cable)
- Used to connect projector to signal interface switcher PC-3000*
- RGB bandwidth of 70 MHz
- Cable compensation function for output signal (70 MHz)

Inputs/Outputs:
14-pin multi connectors
(Input: male, Output: female)
Power requirements:
DC 12 V
Power consumption:
Max. 2 W
Dimensions: 129 (W) × 35 (H) × 138 (D) mm
(5 ⅛ × 1 7⁄16 × 5 ½ inches)
Mass: Approx. 200 g (7 oz)



*The IFB-40 can also be used to connect the VPH-G90E/G90M to the interface switcher PC-1271 with 5 BNC mode

IFB-50

Interface Board for VPH-G90E/G90M/G70QM/G70QMG/D50QM, RVP-6010QM, VPL-X2000E/X2000M, PC-1271M/3000 and IFU-1271M

- Component SDI
- Serial Digital Interface board for SMPTE-259 M-C/ITU-R BT656-3 4:2:2 video signals
- IFB-50 manages video signals only. Serial digital audio signals are not supported.

Inputs/Outputs
In: BNC, Component SDI
Out: BNC, Active loop-through
Dimensions: 129 (W) × 35 (H) × 138 (D) mm
(5 ⅛ × 1 7⁄16 × 5 ½ inches)
Mass: Approx. 200 g (7 oz)

ACTIVE THROUGH
IN
OUT
COMPONENT SDI

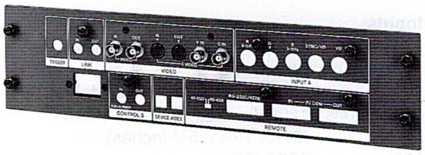
IFB-G90E

Interface Board for VPH-G90E

- Accepts composite video signal and S video signal input

Inputs/Outputs
VIDEO:
Composite:
Loop-through BNC,
1Vp-p ±2 dB sync negative,
75 Ω automatic termination
Y IN: BNC, 1Vp-p ±2 dB sync negative,
75 Ω, terminated
C IN: BNC,
Burst 0.286 Vp-p ±2 dB (NTSC),
sync negative, 75Ω terminated or
0.3 Vp-p ±2 dB (PAL), sync
negative, 75Ω terminated
Y/C IN: Loop-through Mini DIN 4-pin
Y: 1Vp-p ±2 dB sync negative, 75 Ω,
automatic termination
C: Burst 0.286 Vp-p ±2 dB (NTSC),
75 Ω automatic termination or
0.3 Vp-p ±2 dB (PAL), 75 Ω
automatic termination

General
Dimensions: 370(W) × 90(H) × 50(D) mm
(14 ⅝ × 3 ⅝ × 2 inches)
Mass: 260 g (9 oz)
Safety Reguration:
CE

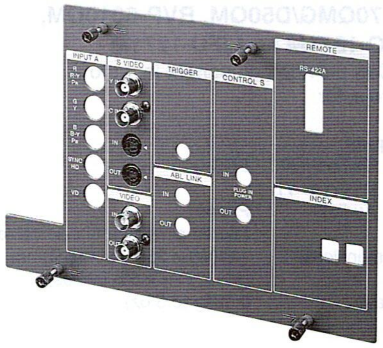


IFB-G70QMG
Interface Board for VPH-G70QMG

•Acceptable for composite video signal and S video signal input •Composite video signal and Y/C video signal are Loop-through

Inputs/Outputs
VIDEO: Loop-through BNC
1Vp-p±2dB sync negative, 75Ω
S VIDEO:
Y IN: BNC
1Vp-p±2dB sync negative, 75Ω
C IN: BNC
Burst 0.286Vp-p±2dB (NTSC), 75Ω
0.3Vp-p±2dB (PAL), 75Ω
Y/C IN: Y(luminance): 1Vp-p±2dB sync negative, 75Ω
C(chrominance):Burst 0.286Vp-p±2dB (NTSC), 75Ω 0.3Vp-p±2dB (PAL), 75Ω

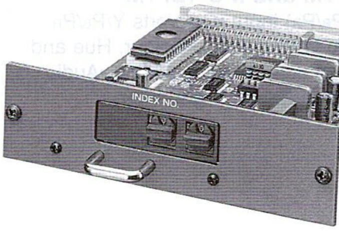
General
Dimensions: 233 × 161 × 43mm
Mass: 210g (7.4oz)
Safety Reguration: CE



IFB-101*
Interface Board for RVP-6010QM and PC-1271M

•Index control for maximum of 100 projectors
•Automatic power on/delayed power on function

Dimensions: 129(W) × 35(H) × 138(D)mm
(5⅛ × 1 7/16 × 5½ inches)
Mass: 0.15kg (5.3 oz)



IFB-X600E
Interface Board for VPL-X600E

•Accepts composite, Y/C, S video
•audio input/output (stereo)

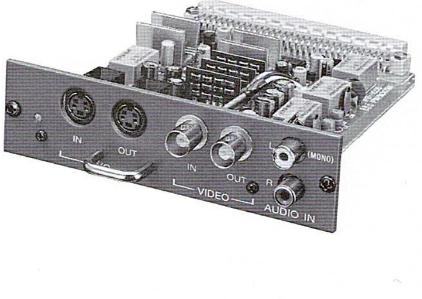
Inputs/Outputs
VIDEO IN
Video (Phono):
1.0 Vp-p ±2 dB sync negative, 75 Ω
S VIDEO (Mini DIN 4-pin):
Y (luminance):
1.0 Vp-p ±2 dB sync negative, 75 Ω
C (chrominance):
Burst 0.3 Vp-p ±2 dB (PAL), 75 Ω
or 0.286 Vp-p Â}2 dB (NTSC), 75 Ω
AUDIO IN: Phono, stereo, 500 mV rms, impedance more than 47 kΩ

Dimensions: 80 (W) × 20 (H) × 40 (D) mm
(3 ¼ × 13/16 × 1 ⅝ inches)
Mass: Approx. 30 g (1 oz)

VIDEO IN
S VIDEO
VIDEO
AUDIO IN
(MONO)
L
R

IFB-1000
Interface Board for VPH-G90E/G90M/ G70QM/G70QMG/G70VRM/D50QM, RVP-6010QM, VPL-X2000E/X2000M, PC-1271M and IFU-1271M

Inputs
Composite*: Loop-through BNC
Y/C*: Loop-through Mini DIN 4-pin
Audio: Phono
(stereo or monaural selectable)
Dimensions: 129(W) × 35(H) × 138(D)mm
(5⅛ × 1 7/16 × 5½ inches)
Mass: 160g (5.6 oz)



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* The Y/C IN has priority over the Composite IN.

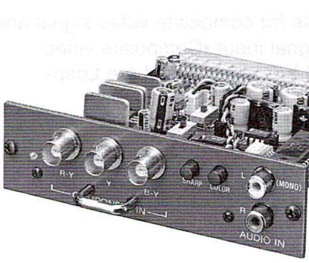
IFB-1200

Interface Board for VPH-G70QM/G70QMG/D50QM, RVP-6010QM, PC-1271M and IFU-1271M

- Can provide component input to a projector

Inputs

Component: (Y/R-Y/B-Y) BNC (×3)
Audio: Phono (stereo or monaural selectable)
Dimensions: 129(W) × 35(H) × 138(D)mm ($5\frac{1}{8} \times 1\frac{7}{16} \times 5\frac{1}{2}$ inches)
Mass: 0.18kg (6.3 oz)



IFB-1301

Interface Board for VPH-G70QM/G70QMG/D50QM, RVP-6010QM, PC-1271M and IFU-1271M

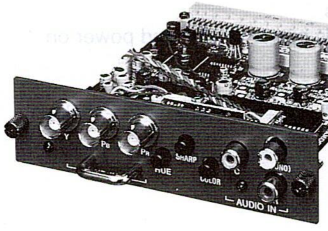
•HD (Y/P_B/P_R) input •Converts Y/P_B/P_R signals to RGB signals •Colour, Hue and Sharpness adjustment available •Audio (Left (Mono)/Center/Right) input

Inputs

HD: BNC
Y (luminance): 1Vp-p±2dB, 75Ω
P_B/P_R (component): ±0.35Vp-p, 75Ω

Output

G/Y: 1Vp-p±2dB, 75Ω
B/R: 0.7Vp-p±2dB, 75Ω
P_B/P_R: 0.35Vp-p, 75Ω
AUDIO*: Phono (stereo/monaural) 250mV rms, impedance more than 47kΩ
Dimension: 129(W) × 35(H) × 138(D) mm ($5\frac{1}{8} \times 1\frac{7}{16} \times 5\frac{1}{2}$ inches)
Mass: 200 g (7 oz)



IFB-X2000E

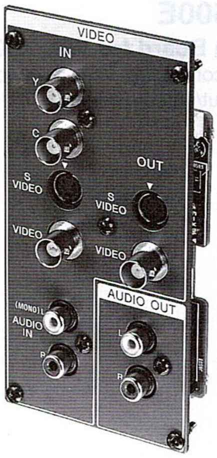
Interface Board for VPL-X2000E

- Accepts composite, Y/C, S video
- audio input/output (stereo)

Inputs/Outputs

VIDEO: Loop-through BNC
1.0 Vp-p ±2 dB sync negative, 75 Ω
S VIDEO
Y IN: BNC
1.0 Vp-p ±2 dB sync negative, 75 Ω
C IN: BNC
Burst 0.3 Vp-p ±2 dB (PAL), 75 Ω or 0.286 Vp-p ±2 dB (NTSC), 75 Ω

Y/C IN: Loop-through Mini DIN 4-pin
Y (luminance):
1.0 Vp-p ±2 dB sync negative, 75 Ω
C (chrominance):
Burst 0.3 Vp-p ±2 dB (PAL), 75 Ω or 0.286 Vp-p ±2 dB (NTSC), 75 Ω
AUDIO IN: Phono, stereo, 500 mV rms, impedance more than 47 kΩ
Dimensions: 67 (W) × 136 (H) × 33 (D) mm (2 3/4 × 5 3/8 × 1 5/16 inches)
Mass: Approx. 145 g (5 oz)



IFB-3000

Interface board for PC-1271M

•Designed for installation in the PC-1271M Signal Interface Switcher •Doubles the number of horizontal scanning lines to minimize line-flicker and reduce the visibility of scanning lines •Contains four inputs; three composite video or Y/C inputs, each with an associated two channel audio input, and one component (Y/R-Y/B-Y) input with two channel audio •Digital frame memory circuit for improved picture reproduction

- Detects motion in a picture during the line doubling process for natural reproduction of moving pictures
- Digital Noise Reducer
- Aperture correction function for enhanced picture edges, vertically as well as horizontally
- Three-dimensional Comb Filter for clear luminance/chrominance separation, with choice of either line or frame comb filtering

•Compatible with PAL/NTSC/SECAM/NTSC$_{4.43}$[*1]

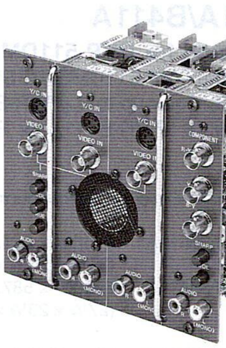
Specifications

General

Colour system:	PAL/NTSC /SECAM /NTSC$_{4.43}$ (automatically selected)
Sampling frequency:	14.3MHz
Power requirements:	DC 12V (supplied from the PC-1271M or RVP-4015QM)
Power consumption:	Approx. 20W
Dimensions:	141(W) × 129(H) × 138(D) mm ($4\frac{5}{8} \times 5\frac{1}{8} \times 5\frac{1}{2}$ inches)
Mass:	870g (1 lb 15 oz)

Inputs

VIDEO
  VIDEO 1 to 3
    Composite video[*2]: BNC
      1Vp-p, sync negative, 75Ω
    Y/C[*2]: Mini DIN 4-pin
      Y (luminance):
        1Vp-p, sync negative, 75Ω
      C (chrominance):
        0.3Vp-p (PAL),
        0.286Vp-p (NTSC), 75Ω
  VIDEO 4
    Y/R-Y/B-Y[*3]: BNC
      R-Y/B-Y: 0.7Vp-p, 75Ω
      Y:1.0Vp-p, sync negative, 75Ω
  AUDIO: Phono (stereo or monaural selectable)



[*1] The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
[*2] The Y/C input have priority over the composite video input.
[*3] 525/60 system: video amplitude 100/0/75 colour bars.
625/50 system: video amplitude 100/0/100 colour bars.

VPS-515RF/415RF

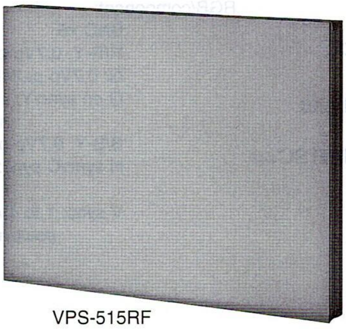
•Screen with ultra-thin 0.2 mm screen surround for RVP-511DMS/411DMS
•Little disturbance of reproduced images
•Suitable for permanent applications

Dimensions:

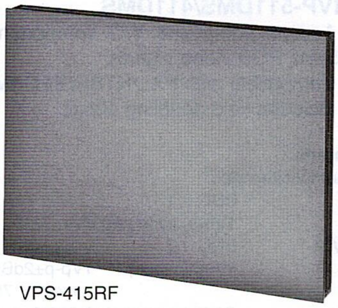
VPS-515RF:	1011.4(W) × 84.2(D) × 760.4(H) mm ($39\frac{7}{8} \times 3\frac{3}{8} \times 30$ inches)
VPS-415RF:	823.4(W) × 84.2(D) × 620.4(H) mm ($32\frac{1}{2} \times 3\frac{3}{8} \times 24\frac{1}{2}$ inches)

Mass:

VPS-515RF:	5.2 kg (11 lb 7 oz)
VPS-415RF:	3.7 kg (8 lb 3 oz)



VPS-515RF



VPS-415RF

VPS-511RF/411RF

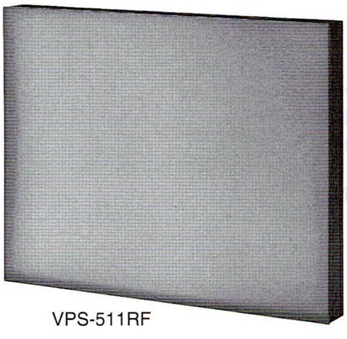
•Screen with durable 1.7 mm screen surround for RVP-511DMS/411DMS
•Suitable for general applications

Dimensions:

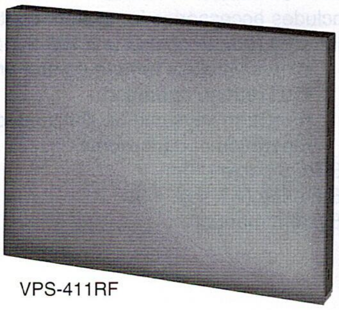
VPS-511RF:	1011 (W) × 87.1(D) × 760 (H) mm ($39\frac{7}{8} \times 3\frac{1}{2} \times 30$ inches)
VPS-411RF:	823 (W) × 87.1(D) × 620 (H) mm ($32\frac{1}{2} \times 3\frac{1}{2} \times 24\frac{1}{2}$ inches)

Mass:

VPS-511RF:	7.9 kg (17 lb 7 oz)
VPS-411RF:	6.2 kg (13 lb 11 oz)



VPS-511RF



VPS-411RF

PWR-B511A/B411A

Installation stand for RVP-511DMS/411DMS

•Base stand for the RVP-511DMS/411DMS with casters and height-adjuster •For up to 8 (PWR-B511A for RVP-511DMS) or 10 (PWR-B411A for RVP-411DMS) vertical stacks*

*In some cases, reinforcement against earthquakes may be required

Dimension:	PWR-B511A:	878(W) × 587.7(H) × 1126(D) mm ($34^5/_8 \times 23^1/_4 \times 44^3/_8$ inches)
	PWR-B411A:	690(W) × 587.7(H) × 934(D) mm ($27^1/_4 \times 23^1/_4 \times 36^7/_8$ inches)
Mass:	PWR-B511A:	50 kg (110 lb 4 oz)
	PWR-B411A:	44 kg (97 lb)

PWR-B511A

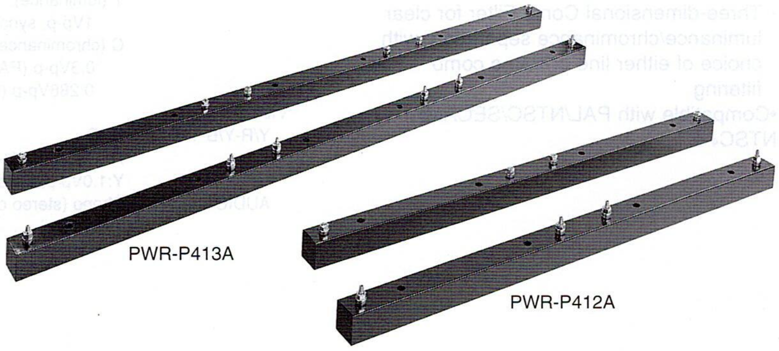
PWR-B411A

PWR- P512A/P513A/P412A/P413A

Position beams for RVP-511DMS/411DMS

•A pair of position beams for dual or double mount horizontally of RVP-511DMS/ 411DMS •Can be utilized in combination with other PWR-P513A/P512A/P412A/ P413A beams for more than triple mount. •PWR-P512A for dual mount of the RVP-511DMS •PWR-P513A for triple mount of the RVP-511DMS •PWR-P412A for dual mount of the RVP-411DMS •PWR-P413A for triple mount of the RVP-411DMS

Dimension:	PWR-P512A:	1940(W) × 80(H) × 80(D) mm ($76^1/_2 \times 3^1/_4 \times 3^1/_4$ inches)
	PWR-P513A:	2952(W) × 80(H) × 80(D) mm ($116^1/_4 \times 3^1/_4 \times 3^1/_4$ inches)
	PWR-P412A:	1564(W) × 80(H) × 80(D) mm ($61^5/_8 \times 3^1/_4 \times 3^1/_4$ inches)
	PWR-P413A:	2388(W) × 80(H) × 80(D) mm ($94^1/_8 \times 3^1/_4 \times 3^1/_4$ inches)



PWR-P413A

PWR-P412A

Mass:	PWR-P512A:	24 kg (52 lb 15 oz)
	PWR-P513A:	36 kg (79 lb 6 oz)
	PWR-P412A:	20 kg (44 lb 1 oz)
	PWR-P413A:	30 kg (66 lb 2 oz)

PWB-411D

Composite video input board for RVP-511DMS/411DMS

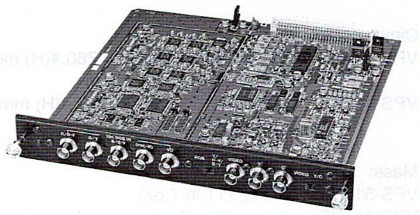
- Accepts composite, Y/C, component and 15kHz RGB video signals
- Compatible with PAL/NTSC/SECAM/NTSC$_{4.43}$
- Includes field doubling circuit

Inputs

Composite video:
BNC × 1
1Vp-p, sync negative, 75Ω

Y/C:
BNC × 2
Y(luminance): 1Vp-p±2dB, sync negative, 75Ω
C(chrominance): 0.286Vp-p±2dB, 75Ω (NTSC), 0.3Vp-p±2dB, 75Ω (PAL)

RGB/component:
BNC ×5
R/R-Y: 0.7Vp-p±2dB, 75Ω
G: 0.7Vp-p±2dB, 75Ω
G on sync/Y: 1Vp-p±2dB, sync negative, 75Ω
B/B-Y: 0.7Vp-p±2dB, 75Ω
H sync/C sync: 1 to 4Vp-p, 75Ω, positive/negative
V sync: 1 to 4Vp-p, 75Ω, positive/negative



PWK-411D

System Control Kit for RVP-511DMS/411DMS

Includes accessories for system control:
- Infrared remote control unit **RM-PJ1292**
  - Wired/wireless remote control unit
  - Full remote operation
  - Function keys can be illuminated for
  - operation in dark rooms
- SIRCS cable (10m)
- Batteries (AA size × 3)
- System manual

RM-PJ1292

CHP-411DM

Projection wall chassis for RVP-511DMS/411DMS

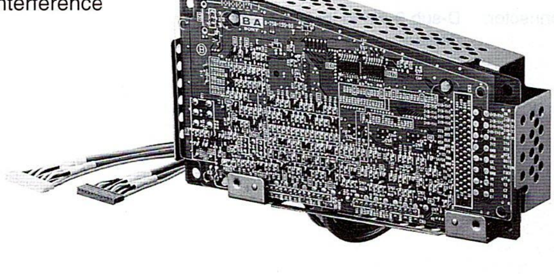
- Provides flexibility in various applications
- For added flexibility, can be combined with the RVP-511DMS/411DMS cabinet
- Can be used as a back-up chassis unit for RVP-511DMS/411DMS

Mass:	47 kg (103 lb 10 oz)
Dimensions:	687 (W) × 469 (H) × 465 (D) mm (27⅛ × 18½ × 18⅜ inches)
Supplied accessories:	AC power cord Remote control cable (1.2 m) Operation manual

EXB-DS10

Extension board for VPH-G70QM/G70QMG/G70VRM/D50QM/D50HTM*

- Line doubler signal processing board designed to be fitted in the VPH-G70QM/G70QMG/G70VRM/D50QM/D50HTM*
- Compatible with composite video, Y/C video, component and 15kHz RGB signals
- Aperture is adjustable horizontally and vertically to achieve crisp image reproduction with any type of input signal
- Line doubler signal processing can be turned ON and OFF via the remote commander or control panel
- Moving image correction circuitry is incorporated for natural reproduction of line-doubled fast-moving images
- Digital noise reducer incorporated
- Compatible with PAL, NTSC, SECAM, NTSC4.43 and PAL-M
- 3D comb filter or 3-line comb filter for NTSC and 3-line comb filter for PAL signals to reduce cross colour and dot interference for clear image reproduction

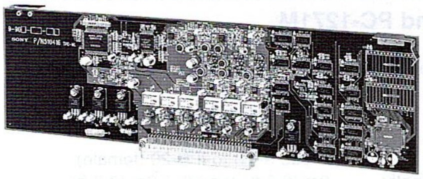


*The EXB-DS10 is supplied with the VPH-D50HTM.

EXB-5010

Extension board for PC-3000

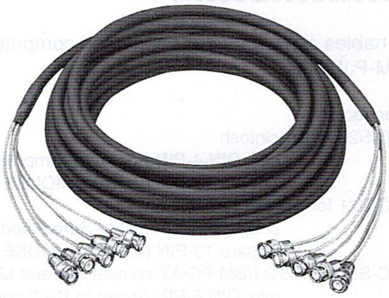
- Designed to connect an RGB monitor to the PC-3000
- Converts HDTV (GBR, Y/PB/PR) and component (Y/R-Y/B-Y) signals to RGB signal
- Colour, Hue and Sharpness can be controlled with EXB-5010



SIC-10

Signal interface cable for VPH-G90E/G90M/G70QM/G70QMG/G70VRM/D50QM/D50HTM, RVP-6010QM and PC-1271M

Connector:	5BNC/5BNC
Length:	10m (32.8 ft)



SIC-20A/20C

Signal interface cable for VPH-G90E/G90M/G70QM/G70QMG/G70VRM/D50QM, RVP-6010QM, VPL-X2000E/X2000M/SC50E/SC50M and PC-1271M

- SIC-20A for Macintosh II Series
- SIC-20C for Power Macintosh, Macintosh LC, PowerBook, Quadra and Centris

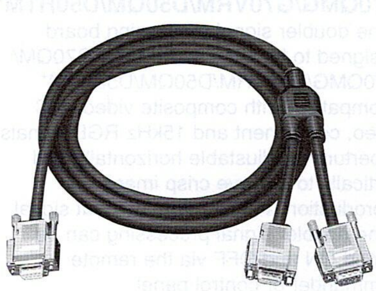
Connector: D-sub 15-pin to local monitor (female)
D-sub 15-pin to computer (male)
D-sub 9-pin to IFB-20 (female)
Length: 2m (6.6ft) overall, 0.2m (0.7ft) branch

SIC-20C

SIC-21

Signal interface cable for VPH-G70QM/G70QMG/G70VRM/D50QM, RVP-6010QM and PC-1271M

Connector: D-sub 9-pin to local monitor (female)
D-sub 9-pin to computer (male)
D-sub 9-pin to IFB-20 (female)
Length: 2m (6.6 ft) overall, 0.2m (0.7ft) branch



*Not available in some areas. For further details, please contact your nearest Sony office.

SIC-22

Signal interface cable for VPH-G90E/G90M/G70QM/G70QMG/G70VRM/D50QM, RVP-6010QM, VPL-X2000E/X2000M/SC50E/SC50M and PC-1271M

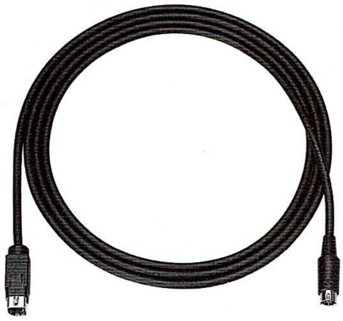
Connector: High Density 15-pin to local monitor (female)
High Density 15-pin to computer (male)
D-sub 9-pin to IFB-20 (female)
Length: 2m (6.6 ft) overall, 0.2m (0.7 ft) branch

SIC-S20/S21/S22

Mouse Cables for VPL-SC50E/SC50M/X600E/X600M/S600E/S600M

- Enables operation of a connected computer with the RM-PJM600.

Connector:
SIC-S20 for Macintosh
mini DIN 4-PIN (male) to computer
Square 13-PIN (male) to MOUSE port of a projector
SIC-S21 for Serial
D-sub 9-PIN (male) to Sereal port
Square 13-PIN (male) to MOUSE port of a projector
SIC-S22 for PS/2 (IBM PC/AT compatible) and Macintosh
mini DIN 6-PIN (male) to PS/2 port
Square 13-PIN (male) to MOUSE port of a projector
Length: 2 m (6.6 ft)


SIC-S20/S22

SIC-S21

2-5 Projector accessories

RM-PJ10

Remote control receiver for VPH-G90E/G90M/G70QM/G70QMG/G70VRM/D50QM/D50HTM, RVP-6010QM and VPL-S500E/S500M/X2000E/X2000M

Power requirements:
DC 6V
Dimensions: 100(W) × 50(H) × 57(D)mm
(4 × 2 × 2 1/4 inches)
(including mounting bracket)
Mass: 0.1kg (3.5 oz)
(including mounting bracket)
Supplied accessories:
Remote control cable: 15m
(450 feet)
Screws

RM-PJ21

Mouse receiver for VPH-G70QM/G70QMG/G70VRM/D50QM*[1]/D50HTM, RVP-6010Q*[1] and VPL-S500E*[2]/S500M*[2]

- Enables operation of a connected computer with the RM-PJM800 or RM-PJM500

Dimensions: 75(W) × 41.8(H) × 79.5(D)mm
(3 × 1 11/16 × 3¼ inches)
Mass: 140g (5 oz)

*1 Should be utilized with the RM-PJM800.
*2 Supplied with the VPL-S500E/S500M.

RM-PJ21

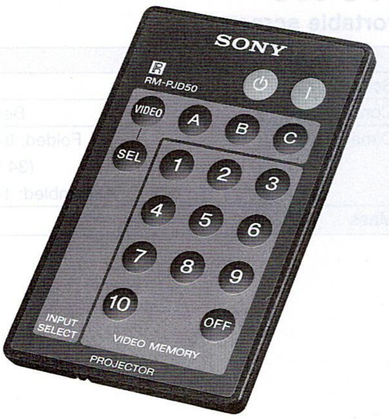
RM-PJD50

Remote control unit for VPH-D50HTM*/G90E/G90M

- Card type design
- Power on/off and input selection operation
- Direct video memory selection

Power requirements:
CR2025 lithium battery (1)
Dimensions: 54 (W) × 86 (H) × 6.5 (D) mm
(2 ¼ × 3 ½ × 9/32 inches)
Mass: Approx. 21.7 g (0.8 oz)

*The RM-PJD50 is supplied with the VPH-D50HTM.



RM-PJM800

Remote control unit for VPH-G70QM/G70QMG/G70VRM/D50QM/D50HTM, RVP-6010QM*[1]/511DMS/411DMS*[1] and VPL-S500E*[1]/S500M*[1]/W400QM*[3]

- Wireless remote control unit for presentations
- Can also be used to control the PC-1271M
- Power on/off and input selection operation
- Computer mouse control when used with RM-PJ21

Power requirements:
DC 5V (Size AA (R6) battery × 2)
Dimensions: 45.5(W) × 22.5(H) × 215.5(D)mm
(1 13/16 × 29/32 × 8½ inches)
Mass: 94g (3 oz)

*1 For mouse function and input selection only.
*2 RM-PJM800 is supplied with the VPD-S1800QM, VPL-S800M and V800QM
*3 Mouse function is not applicable for VPL-W400QM.

RM-PJ1001

Remote control unit for VPH-D50QM/D50HTM*/G70QM/G70QMG/G70VRM/G90E*/G90M*, RVP-6010QM and VPL-S500M/S600M/W400QM/X600E/X600M/X2000E/X2000M

•Wired/wireless remote control unit for setup and operation •Full remote operation •System set up (SYS SET) key for use with PJ COM (RS-485) system •Keys can be illuminated for operation in dark rooms

Power requirements:
DC 5 V (Size AA (R6) battery (3))
Dimensions: 165 (W) × 35 (H) × 141 (D) mm
(6 ½ × 1 7⁄16 × 5 ¾ inches)
Mass: Approx. 285 g (10 oz)

*The RM-PJ1001 is supplied with the VPH-D50HTM/G90E/G90M.

RM-PJ3000S

Remote control unit for VPH-D50QM/G70QM/G70QMG/G70VRM/G90E/G90M, RVP-6010QM and VPL-X2000E/X2000M

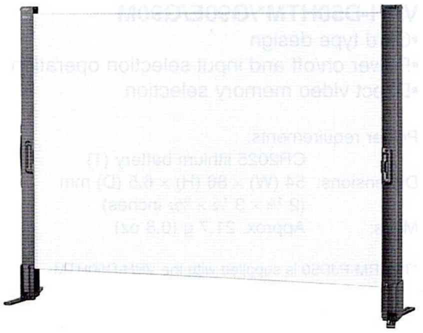
•Wireless remote control unit for simple remote control •Function keys can be illuminated for operation in dark rooms •Equipped with a laser pointer for use in presentations

Laser beam
Laser type: Class II
Wave length: 645 nm
Output: 1 mW
Power requirements:
DC 3 V (Size AA (R6) battery (2))
Dimensions: 45 (W) × 24 (H) × 178 (D) mm
(1 13⁄16 × 31⁄32 × 7 ⅛ inches)
Mass: Approx. 93 g (3.3 oz)

VPS-50C

Portable screen

	VPS-50C
Screen size	50-inch
Construction	Beaded glass flat screen
Dimensions	Folded: 870 (W) × 88 (H) × 80 (D) mm (34 ⅜ × 3 ½ × 3 ¼ inches) Assembled: 1131 (W) × 870 (H) × 240 (D) mm
Mass	2.3 kg (5 lb)



VPS-80C

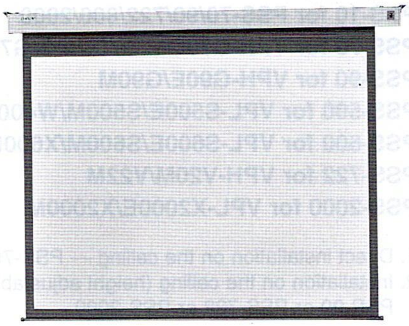
Projection screen

	VPS-80C
Screen size	80-inch
Construction	Beaded glass flat screen
Dimensions	Folded: 1860 (W) × 100 (H) × 107 (D) mm (73 ¼ × 4 × 4 ¼ inches) Assembled: 1860 (W) × 2100 (H) × 220 (D) mm (73 ¼ × 82 ¾ × 8 ¾ inches)
Mass	6.0 kg (13 lb 4 oz)

VPS-120FH*/100FH

Video screen

	VPS-120FH	VPS-100FH
Screen size	120-inch	100-inch compatible
Construction	Beaded glass high-efficiency flat screen with winding mechanism	
Dimensions	2780(W) × 2545(H)mm (109½ × 100¼ inches)	200(W) × 1765(H)mm (86¾ × 69½ inches)
Mass	21 kg (46 lb 5 oz)	8 kg (17 lb 10 oz)

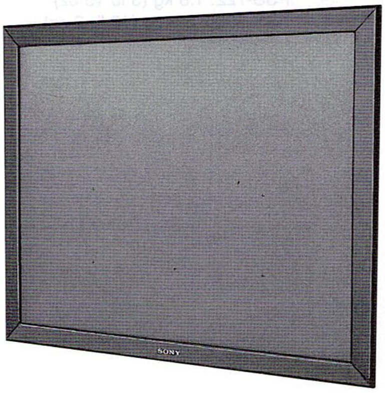


*Not available in some areas. For further details, please contact your nearest Sony office.

VPS-702R

70-inch rear screen

	VPS-702R
Screen size	70-inch
Screen pitch	0.72mm (1/32 inches)
Construction	Rear projection, 70-inch acrylic plastic screen, Fresnel, lenticular type with Black stripe
Dimensions	Max. outer size: 1465(W) × 1110(H) × 4(D)mm (57¾ × 43⅜ × 3/16 inches) Valid screen size: 1427(W) × 1070(H)mm (56¼ × 42¼ inches)
Mass	7.9 kg (17 lb 7 oz)



VPF-701R

Rear screen frame for VPS-702R

Dimensions: Outer size:
1597(W) × 1240(H) × 30(D)mm
(63 × 48⅞ × 1 3/16 inches)
Inner size:
1427(W) × 1070(H)mm
(56¼ × 42¼ inches)
Mass: 8.5 kg (18 lb 11.8 oz)
Supplied accessories:
Bracket, screws

PSS-10/70/90/500/600/722/2000

Suspension support

PSS-10 for PSS-70/90/722/800/2000
PSS-70 for VPH-G70QM/G70QMG/G70VRM/D50QM/D50HTM
PSS-90 for VPH-G90E/G90M
PSS-500 for VPL-S500E/S500M/W400QM
PSS-600 for VPL-S600E/S600M/X600E/X600M
PSS-722 for VPH-V20M/V22M
PSS-2000 for VPL-X2000E/X2000M

1. Direct installation on the ceiling — PSS-70/90/500/600/722/2000
2. Installation on the ceiling (height adjustable) — PSS-10 + PSS-70 or PSS-90 or PSS-722 or PSS-2000

Mass:
PSS-10: 10.3 kg (22 lb 11 oz)
PSS-70: 9.0 kg (19 lb 13 oz)
PSS-90: 15 kg (33 lb 11 oz)
PSS-500: 3.0 kg (6 lb 10 oz)
PSS-600: 2.7 kg (5 lb 15 oz)
PSS-722: 1.8 kg (3 lb 15 oz)
PSS-2000: 5.5 kg (12 lb 2 oz)

PSS-70

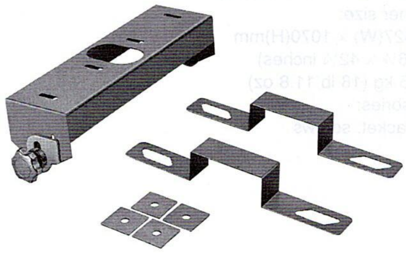
PSS-10

PSS-90

PSS-600

PSS-500

PSS-2000



PSS-722

VPHL-9270

Projection lens for VPH-G90E/G90M

- Can be used for screen size of 70 to 90-inch

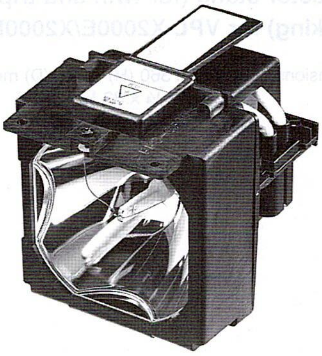
F1.2/157mm
Dimensions: 181(W) × 181(H) × 232(D)mm
(7¼ × 7¼ × 9¼ inches)
Mass: 5.4 kg (11lb 14 oz)

PK-PJ500*

Projector lamp (for replacement) for VPL-S500E/S500M and W400QM

- 250W metal halide lamp

Dimensions: 104(W) × 122(H) × 115(D)mm
(4⅛ × 4⅞ × 4⅝ inches)
Mass: 390 g (14 oz)



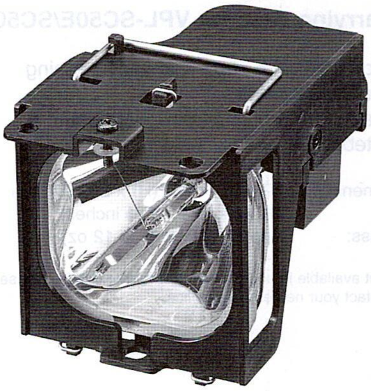
*PK-PJ500 is not available in some areas. Please consult your nearest Sony office.

LMP-600

Projector lamp (for replacement) for VPL-SC50E/SC50M/S600E/S600M/X600E/X600M

- 120 W UHP lamp

Dimensions: 75 (W) × 105 (H) × 83.5 (D) mm
(2 5⁄16 × 4 ⅛ × 3 5⁄16 inches)
Mass: 210 g (7.4 oz)

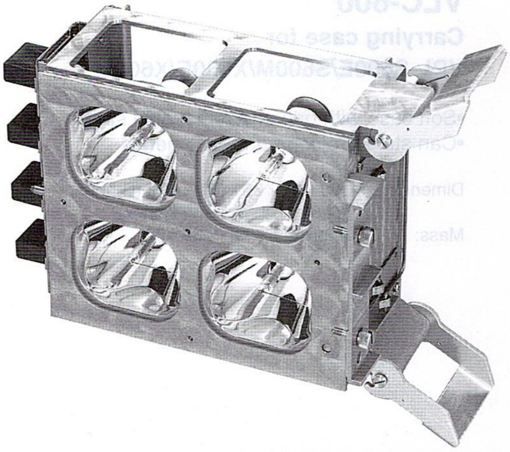


LMP-Q2000

Quad projector lamp (for replacement) for VPL-X2000E/X2000M

- Four 120 W UHP lamps

Dimensions: 220 (W) × 105 (H) × 147 (D) mm
(8 ¾ × 4 ¼ × 5 ⅞ inches)
Mass: 1.4 kg (3 lb)



LMP-S2000

Projector lamp (for replacement) for LMP-Q2000

- 120 W UHP lamp

Dimensions: Approx. 70 (W) × 84 (H) × 65 (D) mm
(2 ⅞ × 3 ⅜ × 2 ⅝ inches)
Mass: 140 g (5 oz)

SU-PJ2000

Projector stand (for twin and triple stacking) for VPL-X2000E/X2000M

Dimensions: 840 (W) × 360 (H) × 840 (D) mm
(33 ⅛ × 14 ¼ × 33 ⅛ inches)
Mass: Approx. 32 kg (70 lb 6 oz)

VLC-SC50

Carrying case for VPL-SC50E/SC50M

- Soft case with strap and easy opening double fasteners
- Can store projector, peripherals and a notebook PC

Dimensions: 320 (W) × 250 (H) × 200 (D) mm
(12 ⅝ × 9 ⅞ × 7 ⅞ inches)
Mass: Approx. 0.8 kg (1 lb 12 oz)

*Not available in some areas. For further details, please contact your nearest Sony office.

VLC-600

Carrying case for VPL-S600E/S600M/X600E/X600M

- Soft case with grip and removable strap
- Can store projector and peripherals

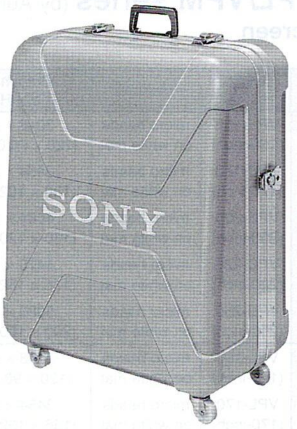
Dimensions: 358 (W) × 361 (H) × 138 (D) mm
(14 ⅛ × 14 ⅛ × 6 ⅝ inches)
Mass: Approx. 1.4 kg (3 lb 1 oz)

VLC-1040

Carrying case for VPH-V22M/V20M

•Suitable for transportation or storage

Dimensions:	640(W) × 810(H) × 355(D) mm (25¼ × 32 × 14 inches)
Mass:	10 kg (22 lb 1 oz)

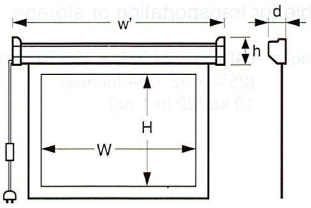


VPE/VPL/VPM series (by Aurora)

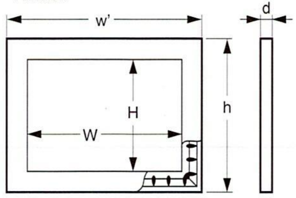
Video screen

Type	Model name	Material	Screen size (W × H)mm	Dimensions (W × H × D)mm	Mass (kg)	Screen seam
Motor drive	VPE-150 (150-inch)	micro beads on white mat	3048 × 2286 (120 × 90.0 inches)	3455 × 150 × 118 (136 × 5.9 × 4.6 inches)	26	horizontal (1)
	VPE-170 (170-inch)	micro beads on white mat	3454 × 2591 (136 × 102 inches)	3862 × 150 × 118 (152 × 5.9 × 4.6 inches)	30	horizontal (1)
	VPE-200 (200-inch)	micro beads on white mat	4064 × 3048 (160 × 120 inches)	5812 × 310 × 248 (228.8 × 12.2 × 9.8 inches)	129	horizontal (1)
	VPE-220 (220-inch)	micro beads on white mat	4470 × 3353 (176 × 132 inches)	6238 × 310 × 248 (245.6 × 12.2 × 9.8 inches)	140	horizontal (1)
	VPE-250 (250-inch)	micro beads on white mat	5080 × 3810 (200 × 150 inches)	6928 × 310 × 248 (272.8 × 12.2 × 9.8 inches)	150	horizontal (2)
Tension	VPL-150 (150-inch)	micro beads on white mat	3048 × 2286 (120 × 90 inches)	3448 × 2286 × 55 (135.8 × 90 × 2.2 inches)	36	vertical (1)
	VPL-170 (170-inch)	micro beads on white mat	3454 × 2591 (136 × 102 inches)	3854 × 2991 × 55 (151.7 × 117.7 × 2.2 inches)	41	vertical (1)
	VPL-200 (200-inch)	micro beads on white mat	4064 × 3048 (160 × 120 inches)	4664 × 3648 × 55 (183.6 × 143.6 × 2.2 inches)	48	vertical (2)
	VPL-220 (220-inch)	micro beads on white mat	4470 × 3353 (176 × 132 inches)	5070 × 3953 × 55 (199.6 × 155.6 × 2.2 inches)	53	vertical (2)
	VPL-250 (250-inch)	micro beads on white mat	5080 × 3810 (200 × 150 inches)	5680 × 4410 × 55 (223.6 × 173.6 × 2.2 inches)	60	vertical (2)
Hang.up	VPM-150 (150-inch)	micro beads on white mat	3048 × 2286 (120 × 90 inches)	3292 × 2456 × 35 (129.6 × 96.7 × 1.4 inches)	9.5	horizontal (1)
	VPM-170 (170-inch)	micro beads on white mat	3454 × 2591 (136 × 102 inches)	3698 × 2761 × 35 (145.6 × 108.7 × 1.4 inches)	11	horizontal (1)
	VPM-200 (200-inch)	micro beads on white mat	4064 × 3048 (160 × 120 inches)	4584 × 3488 × 35 (180.5 × 137.3 × 1.4 inches)	12	horizontal (1)
	VPM-220 (220-inch)	micro beads on white mat	4470 × 3353 (176 × 132 inches)	5010 × 3813 × 35 (197.2 × 150.1 × 1.4 inches)	13	horizontal (1)
	VPM-250 (250-inch)	micro beads on white mat	5080 × 3810 (200 × 150 inches)	5700 × 4350 × 35 (224.4 × 171.2 × 1.4 inches)	15	horizontal (2)

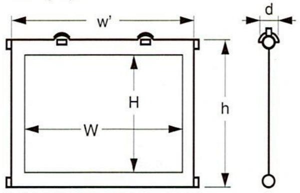
Motor drive



Tension



Hang-up



VPLL-FM20

Projection lens for VPL-X600E/ X600M/S600E/S600M

- Fixed short focus lens
- For rear projection

Lens: f24.24mm/F3.0
Screen coverage:
 50-200 inches
Throwing distance:
 100-inch: 1790 mm
 200-inch: 3640 mm
Dimensions: Ø 120 mm, length 204 mm
 (Ø 4 3/4, length 8 1/32 inches)
Mass: Approx. 1530 g (3 lb 6 oz)

VPLL-FM30

Projection lens for VPL-X600E/ X600M/S600E/S600M/S500E/S500M/ W400QM

- Fixed short focus lens

Lens: f37mm/F3.5
Screen coverage:
 VPL-W400 series (16:9)
  40-300 inches
 VPL-W400 series (4:3)
  40-240 inches
Throwing distance:
 VPL-W400 series (16:9)
  100-inch: 2700 mm
  200-inch: 5470 mm
 VPL-W400 series (4:3)
  100-inch: 3330 mm
  200-inch: 6720 mm
 VPL-S500 series
  100-inch: 2790 mm
  200-inch: 5640 mm
Dimensions: Ø 120 mm, length 209 mm
 (Ø 4 3/4, length 8 1/4 inches)
Mass: Approx. 2100 g (4 lb 10 oz)

VPLL-FM100

Projection lens for VPL-W400QM

- Fixed long focus lens

f130mm/F3.0
Screen coverage:
 40 to 300-inch
Throwing distance:
 VPL-W400QM (16:9)
  100-inch: 9570 mm
  200-inch: 19140 mm
 VPL-W400QM (4:3)
  100-inch: 11750 mm
  200-inch: 23490 mm
Dimensions: 95(W) × 85(H) × 175(D) mm
 ($3^3/_4 \times 3^3/_8 \times 7$ inches)
Mass: 670g (1 lb 8 oz)

VPLL-ZM100

Projection lens for VPL-X600E/ X600M/S600E/S600M/S500E/S500M and W400QM

- 2 times zoom long focus lens

Lens: f72.3-141.0 mm/F3.0-4.6
Screen coverage:
 VPL-W400 series (16:9)
  90-300 inches
 VPL-W400 series (4:3)
  80-250 inches
 VPL-V500/S500 series
  50-300 inches
Throwing distance:
 VPL-W400 series (16:9)
  100-inch: 5330-10120 mm
  200-inch: 10820-20260 mm
 VPL-W400 series (4:3)
  100-inch: 6580-12420 mm
  200-inch: 13310-24870 mm
 VPL-V500/S500 series
  100-inch: 5500-10430 mm
  200-inch: 11150-20880 mm

Dimensions: Ø 86 mm, length 233.8 mm
 (Ø 3 1/2, length 9 7/32 inches)
Mass: Approx. 1650 g (3 lb 10 oz)

VPLL-Z2019

Projection lens for VPL-X2000E/X2000M

- 1.3 times zoom standard focus lens

Lens: f71.0-92.3mm/F2.5-3.0
Screen coverage:
40-500 inches
Throw ratio: 1.9-2.4:1
Throwing distance
40-inch: 1,490-1,890 mm
100-inch: 3,870-4,880 mm
300-inch: 11,820-14,840 mm
Dimensions: Ø 82 mm, length 198 mm
(Ø 3 1/4, length 7 7/8 inches)
Mass: 2.4 kg (5 lb 4 oz)

VPLL-Z2025

Projection lens for VPL-X2000E/X2000M

- 1.6 times zoom long focus lens

Lens: f92.1-147.3mm/F2.6-3.5
Screen coverage:
80-500 inches
Throw ratio: 2.47-3.81:1
Throwing distance
100-inch: 5,020-7,750 mm
200-inch: 10,220-15,660 mm
300-inch: 15,430-23,580 mm
Dimensions: Ø 96 mm, length 262 mm
(Ø 3 7/8, length 10 3/8 inches)
Mass: 3.8 kg (8 lb 6 oz)

VPLL-Z2039

Projection lens for VPL-X2000E/X2000M

- 1.5 times zoom long focus lens

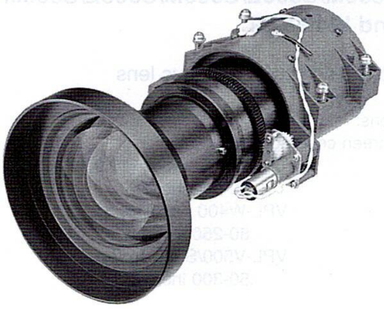
Lens: f144.4-216.5mm/F2.8-3.6
Screen coverage:
80-500 inches
Throw ratio: 3.93-5.65:1
Throwing distance
100-inch: 7,990-11,480 mm
200-inch: 16,150-23,120 mm
300-inch: 24,300-34,760 mm
Dimensions: Ø 78.6 mm, length 303.5 mm
(Ø 3 1/8, length 12 inches)
Mass: 4.1 kg (9 lb)

VPLL-2009

Projection lens for VPL-X2000E/X2000M

- Fixed short focus lens

Lens: f34.2mm/F3.0
Screen coverage:
40-500 inches
Throw ratio: 0.89:1
Throwing distance
40-inch: 640 mm
100-inch: 1,800 mm
300-inch: 5,670 mm
Dimensions: Ø 116.1 mm, length 301.4 mm
(Ø 4 5/8, length 11 7/8 inches)
Mass: 4.2 kg (9 lb 4 oz)



VPLL-2014

Projection lens for VPL-X2000E/X2000M

- Fixed short focus lens

Lens: f51.9mm/F3.0
Screen coverage:
40-500 inches
Throw ratio: 1.36:1
Throwing distance
40-inch: 1,030 mm
100-inch: 2,760 mm
300-inch: 8,520 mm
Dimensions: Ø 120 mm, length 290.9 mm
(Ø 4 3/4, length 11 1/2 inches)
Mass: 4.9 kg (10 lb 12 oz)

VPLL-2075

Projection lens for VPL-X2000E/X2000M

- Fixed long focus lens

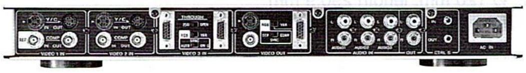
Lens: f269.1mm/F3.5
Screen coverage:
80-500 inches
Throw ratio: 7.38:1
Throwing distance
100-inch: 15,000 mm
200-inch: 29,830 mm
300-inch: 44,660 mm
Dimensions: Ø 95.3 mm, length 254.1 mm
(Ø 3 7/8, length 10 1/8 inches)
Mass: 3.1 kg (6 lb 13 oz)

DSC-1024G

Digital Scan Converter

•Versatile upward and downward digital scan converter •Input accepted in the 15.6 to 70kHz horizontal frequency range and the 50 to 120Hz vertical frequency range and output at an industry standard 15.6kHz, 31.5kHz, 37kHz, 48kHz or 64kHz frequency •Built-in transcoder for universal conversions between video signal formats •Genlock function is available •PAL/NTSC conversion capability •Scan doubler capability •Automatic input signal recognition •Variable offset sampling and High-density vertical interpolation capability for conversion resolutions •Adjustable aspect ratios •Built-in test pattern generator •Zoom, pan and freeze frame functions provided for easy operation •On-screen display for adjustment/operation

SONY
SCAN CONVERTER DSC-1024G
1
2
3



Supplied accessories:	D-sub 15-pin to 5BNC cable (6ft.) Operation manual
Optional accessories:	Rack mount bracket: MB-510 D-sub 15-pin to 5 BNC cable: SMF-400 D-sub 15-pin to D-sub 15-pin cable: SMF-401 Remote commander: RM-PJ1000, RM-PJ1292, RM-1271, RM-PJM500, RM-PJM800, etc.

Specifications

General

Power requirements:	AC 220 to 240V, 0.25A (max.), 50/60Hz
Power consumption:	30W (max. power on), 3W (typical power off)
Operating temperature:	0 to 35°C (50 to 96°F)
Dimensions:	424(W) × 44(H) × 354(D)mm (16¾ × 1¾ × 4inches)
Mass:	4.1 kg (9 lb 1 oz)

Input connector

Video 1:	Composite: Loop-through BNC S Video: Loop-through Mini DIN 4-pin
Video 2:	Composite: Loop-through BNC S Video: Loop-through Mini DIN 4-pin
Video 3:	Component (R/G/B, Y/R-Y/B-Y) Loop-through D sub 15-pin
Audio1/2/3:	L/R RCA jack

Output connector

Video out: Composite:	BNC
S Video:	MINI DIN 4-pin
Component (R/G/B, Y/R-Y/B-Y):	D sub 15-pin
Audio:	L/R RCA jack

Signal level

Composite:	1Vp-p (typical), Automatic 75Ω termination	
S Video:	Y: Vp-p (typical), sync negative C: 0.3Vp-p (PAL)/0.286Vp-p (NTSC) (typical) Automatic 75Ω termination	
Component:	R/G/B input:	0.714Vp-p (typical)(sync on G/external sync, switchable), 75Ω/Hi-Z HV.sync/c.sync: 1-5Vp-p
	R/G/B output:	0.714Vp-p (typical) (with external sync), 75Ω (typical) HV.sync/c.sync: TTL
	Y/R-Y/B-Y input:	0.7Vp-p (typical) (PAL/NTSC, sync on Y), 75Ω/Hi-Z
	Y/R-Y/B-Y output:	0.7Vp-p (typical) (with sync on Y), 75Ω (typical)

Format conversion

Capture range:	fH: 15.6 to 70kHz, fV: 50 to 120Hz
Sampling rate:	14.3 to 40MHz offset phase max. (Equivalent to 80MHz sampling)
Output pixel clock:	14.3 to 50MHz
Line doubler:	Line doubled vertically for each field
Genlock	Reference: Black/burst signal on VIDEO1 input Applicable to NTSC/PAL outputs only Genlock ON/OFF, SCH adjustment
Picture adjustment:	CONTRAST/PHASE (except for RGB/YBR/PAL)/ CHROMA (except for RGB) SIZE/CENTER/ZOOM (×2, ×3, ×4)/APERTURE (ON/OFF)/STILL (ON/OFF)

Regulation compliance

Europe:	GS mark (IEC-950, TÜV) CE mark (EN-60950/EN-5082/EN55022 class B)
Nordic:	DEMKO/SEMKO/NEMKO/EI safety approvals

SECTION 6 STILL IMAGE PRODUCTS

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1 Digital instant pass photo system

UPX-2000

Digital Instant Pass Photo System

- High quality prints suitable for ID (Identification) photographs
- Image can be checked on the LCD monitor before printing
- Alternative operating methods (no PC required)
  - docking with the Camera Station
  - via Camera Station RS-232C port, without docking
- C-mount lens/strobe synchronization capability

Supplied accessories:	AC adaptor/battery charger Paper tray (for UPC-2040A/2070E) Paper tray (for UPC-20S16/20S04/20S01/2010/2020)
Optional accessories:	Self-laminating colour printing pack UPC-2040A (for 120 prints) Colour postcard printing pack UPC-2070E (for 150 prints) 16-split Self-adhesive pre-cut colour printing pack UPC-20S16 (for 200 prints) 4-split Self-adhesive pre-cut colour printing pack UPC-20S04 (for 200 prints) Self-adhesive colour printing pack UPC-20S01 (for 200 prints) Colour printing pack UPC-2010 (for 200 prints) Black and white printing pack UPC-2020 (for 200 prints) Rechargeable lithium-ion battery NP-F550 Remote control unit RM-91 Paper ejector UPA-2001

Specifications

UPX-2000

Safety standards:	EN60950, UL 1950, CSA C22.2 No. 950
EMC:	EN50081-1 class B, EN50082-1 class B AS4251.1, AS4252.1 FC class A, IC class A

(Digital Camera)

Imager:	1/3-inch progressive scan CCD with 350,000 pixels (effective pixel number: 320,000 pixels)
Resolution:	640 × 480 pixels (high resolution mode) 320 × 240 pixels (normal resolution mode)
Image format:	JPEG
Lens mount:	C-mount
Lens :	16 mm focal length (equivalent to 100 mm focal length by 35 mm camera)
White balance:	Auto/3,200K/5,400K (selectable)
Shutter speeds:	1/4 to 1/10,000 seconds, 1/250 seconds (when taking strobe)
Sensitivity:	ISO 160 equivalent
Focusing:	Manual
Self-timer:	10 sec.
Recording media:	4 MB internal flash memory
Number of images:	30 pictures (high resolution mode) 120 pictures (normal resolution mode)
Monitor:	2-inch TFT colour LCD monitor with 110,000 pixels
Flash:	External flash (hot shoe and exterminal equipped)
Power source:	DC in 8.4V; AC adapter
AC Adapter:	220 to 240 V, 120 V, 50/60 Hz
Operating time:	Over four hours with LCD monitor On (with full-charged lithium-ion battery (NP-F550))
Digital I/F:	RS-232C
Video output:	NTSC
Other I/O:	Remote shutter release connector, AC IN connector, two screw holes
Dimension (with grip):	162.1 (W) × 111.5 (H) × 99.5 (D) mm (6 ½ × 4 ½ × 4 inches)
Mass (with grip):	710 g +100 g battery (1 lb 9 oz + 4 oz)

(Camera Station)

Dimension:	222 (W) × 36 (H) × 205 (D) mm (8 ¾ × 1 7⁄16 × 8 ⅛ inches)
Mass:	940 g (23 lb 2 oz) including the connecting cable

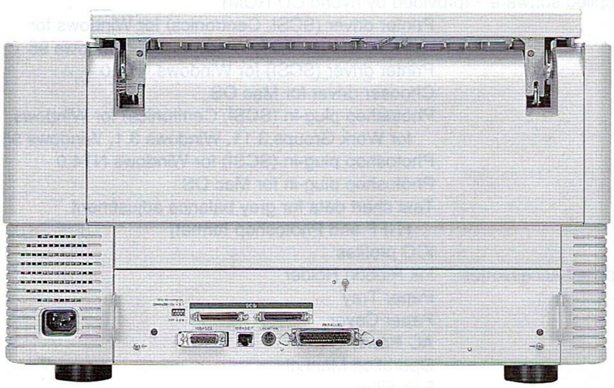
(Printer)

Printing method:	Dye sublimation thermal transfer
Resolution:	310 dpi
Gradation:	256 levels each for Yellow, Magenta and Cyan (16.7 million colours per dot)
Paper tray capacity:	200 sheets
Power requirement:	220 to 240V, 50/60Hz
Power consumption:	Approx. 1.0A
Printing time:	Approx. 97 seconds (UPC-2040A) Approx. 50 seconds (UPC-2070E/20S16/20S04/20S01/2010/2020)
Dimension:	370 (W) × 125 (H) × 417 (D) mm (14 ⅝ × 5 × 16 ½ inches)
Mass:	9.5 kg (23 lb 2 oz)

UP-D9500/YP-D9000

Digital colour printer

•Selectable Printing methods: dye sublimation printing and variable dot printing •300 × 300dpi or 300 × 600dpi (Dye sublimation only) resolution •Stable colour reproduction combining paper chucking technology and automatic ribbon lot compensation •Large print area of 458 × 323mm (18⅛ × 12¾ inches) and paper size of 523 × 330mm (20⅝ × 13 inches) for A3 and tabloid proofing •Flexible colour matching to achieve a precise simulation of a target press •Compatibility with Macintosh® OS and Windows® 95/98*[1]/NT OS (UP-D9500) •Quick data transfer supporting EtherTalk, 10Base5 and 10Base-T •Incorporates Adobe® PostScript® Level 2 Interpreter (UP-D9500) •Large capacity HDD for spool printing and font downloads •Supporting DCS format file (UP-D9500)



Supplied software: (UP-D9500)	(For Macintosh OS and Windows 95/NT OS) PS printer driver, PPD file and PDF file for QuarkXpress™ Photoshop® plug-in module Network/colour matching utility and IT8.7/3 colour patch digital data ICC profile (×2) On-line manual in Adobe Acrobat®'s PDF format
Supplied accessories:	Ink ribbon holder Paper tray (1) AC power cable Operation manual
Optional accessories:	A3++ size dye sublimation print paper (60 sheets × 3 packs) UPP-9510 A3++ size dye sublimation colour ink Ribbon (180 prints) UPR-9510 A4++ size dye sublimation print paper (60 sheets × 4 packs) UPP-9511 A4++ size dye sublimation colour ink Ribbon (240 prints) UPR-9511 A3++ size variable dot print paper (60 sheets × 3 packs) UPP-9550 A3++ size variable dot colour ink ribbon (180 prints) UPR-9550 A4++ size variable dot print paper (60 sheets × 4 packs) UPP-9551 A4++ size variable dot colour ink ribbon (240 prints) UPR-9551 Ink ribbon holder UPA-9500 Add-on memory kit (32MB) UPK-9500*[2]

Specifications

Printing Method:	Dye sublimation printing Variable dot thermal printing
Resolution:	300 × 300dpi, 300 × 600dpi (Dye sublimation only)
Gradation:	256 gradations for Yellow, Magenta, Cyan and Black
Printing paper size:	A3++: 523 × 330 mm (20⅝ × 13 inches) A4++: 330 × 307 mm (13 × 12⅛ inches)
Printed picture size:	A3++: Max. 458 × 323 mm (18⅛ × 12¾ inches) A4++: Max. 323 × 242 mm (12¾ × 9⅝ inches)
Picture elements:	Max. 5408 × 3810dots (300 × 300dpi mode), 10816 × 3810dots (300 × 600dpi mode)
Picture memory:	64MB*[2]
HDD:	2 GB
Printing time:	A3++: Approx. 250 seconds A4++: Approx. 170 seconds
Interface port:	LocalTalk, Parallel, 10Base-T, 10Base5, SCSI
Power requirements:	220 to 240V, 50/60Hz
Power consumption:	1.8A
Dimensions:	510(W) × 310(H) × 642(D) mm (20⅛ × 12¼ × 25⅜ inches)
Mass:	40 kg (88 lb 3 oz)
Safety regulations:	EN60950

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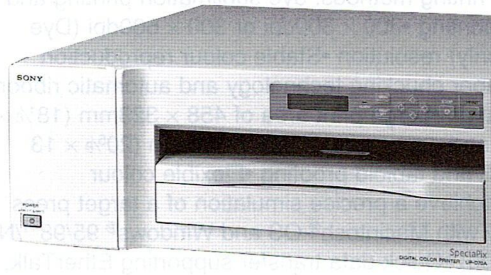
*[1] Can be operated using the Windows 95 driver software.

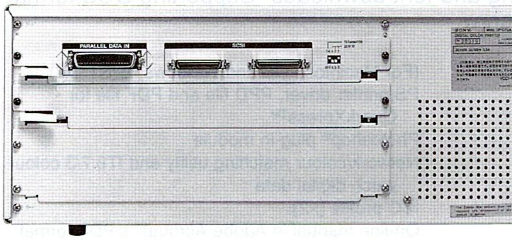
*[2] Using the optional UPK-9500 add-on Memory Kit, the picture memory of the UP-D9500 will be expandable up to 128 MB.

UP-D70A

Digital colour printer

•State-of-the-art quality and high speed digital colour printing with 300dpi •256 gradations and over 16 million colour reproduction per pixel •A4 size print (210 × 297mm/8⅜ × 11¾ inches) in approx. 85 seconds (Approx. 55 seconds in the 150 dpi print mode) •Provides superb bit-map printing through a SCSI and Centronics interface facility •Provides PostScript® printing through multiple interface facilities with the optional P891 Colour Connectivity Controller[*1]
•Full-bleed A4 size (215.9 × 297mm/8½ × 11¾ inches) image printing •Grey balance adjustments for delicate grey colour reproduction •Colour management by ICC profiles
•A wide range of optional accessories including printer driver software, add-on memory, for easy system expansion
•Compatibility with Windows® 95/98[*2]/NT and Macintosh® OS





Supplied software[*3] (provided by hybrid CD-ROM)	Printer driver (SCSI, Centronics) for Windows for Work Groups 3.11, Windows 3.1, Windows 95 Printer driver (SCSI) for Windows NT4.0 Chooser driver for Mac OS Photoshop plug-in (SCSI, Centronics) for Windows for Work Groups 3.11, Windows 3.1, Windows 95 Photoshop plug-in (SCSI) for Windows NT4.0 Photoshop plug-in for Mac OS Test chart data for grey balance adjustment (TIFF and Photoshop format) ICC profiles
Supplied accessories:	Ink Ribbon Holder Paper Tray Paper Cover AC Power Cable Operation Manual Fan Filter Thermal Head Cleaning Kit
Optional accessories:	Colour connectivity controller P891[*1]
Optional Print Packs:	A4 size self-laminating colour print UPC-740 A4 plus size self-laminating colour print pack UPC-747 A4 size colour print pack UPC-8810 A4 plus size colour print pack UPC-8817 A4 size B&W print pack UPC-8820 A4 size seif-laminating colour print pack UPC-8840A

Specifications

Printing Method:	Dye transfer sublimation thermal printing		
Resolution:	300 dpi or 150 dpi selectable		
Gradations:	256 levels each for YMC (16.7 million colours per dot)		
Effective Print Pixels:	A4 Size:	300 dpi; 2,400 × 3,208 dots 150 dpi; 1,200 × 1,604 dots	
	A4 Plus Size:	300 dpi; 2,550 × 3,508 dots 150 dpi; 1,275 × 1,754 dots	
Print Area:	A4 Size:	203.2 × 271.6 mm (8 × 10¾ inches)	
	A4 Plus Size:	215.9 × 297 mm (8½ × 11⅞ inches)	
Paper Area:	A4 Size:	210 × 297 mm (8⅜ × 11¾ inches)	
	A4 Plus Size:	222 × 322.4 mm (8⅞ × 12¾ inches)	
Printing Time: (Colour)		Standard	Laminating
	A4 Size:	300 dpi; 85 sec.	115 sec.
		150 dpi; 55 sec.	85 sec.
	A4 Plus Size:	300 dpi; 90 sec.	130 sec.
		150 dpi; 60 sec.	95 sec.
Printing Time: (B/W)		Standard	
	A4 Size:	300 dpi; 55 sec.	
		150 dpi; 35 sec.	

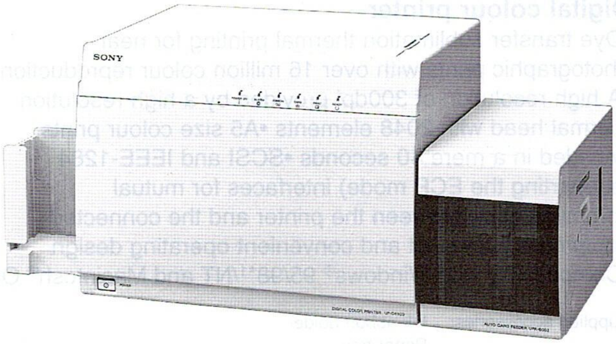
Paper Tray Capacity:	100 sheets
Interface:	SCSI and Centronics
Picture Memory:	30MB
Power Requirements:	AC220 to 240V, 50/60Hz
Power Consumption:	Max. 260W Less than 30W (Stand-by mode)
Dimensions:	493.8(W) × 189(H) × 468.8(D)mm (19½ × 7½ × 18½ inches)
Mass:	Approx. 19 kg (41 lb 14 oz)
Safety Standards:	EN60950

[*1] The P891 is not available in some areas. For further details, please consult your nearest Sony office.
[*2] Can be operated using the Windows 95 driver software. For operation details, please consult your nearest Sony office.
[*3] Printer driver for Silicon graphics WS is provided as freeware from SonyDrive.
The newest driver software is provided at the following address: http://www.sony.co.jp/ServiceArea/DP-driver/index.html.

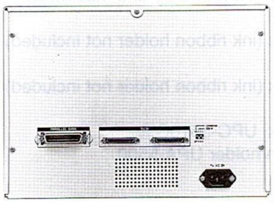
UP-D6500/D6400/D6300

Digital Colour Printer

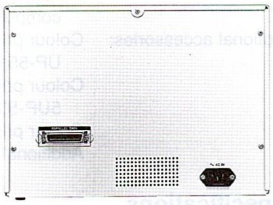
•Superb quality digital color printer for ID card production •Dual-side printing (ISO 7810 standard card) •Quick data download and high speed thermal lamination process — 40 s with CMYL ribbon •SCSI-2 high-speed interface for high volume applications (UP-D6500) •Magnetic stripe encoding (UP-D6500/D6400) •Smart card encoding (UP-D6500) •Anti-forgery security lamination •Template memory*[1] feature (UP-D6500/D6400) •Holds up to approx. 125*[2] (UP-D6500: 250*[3]) cards in the optional card feeder and card stacker •Compatibility with Windows® 95/98*[4] and NT OS



UP-D6500 with UPA-6003 Auto Card Feeder



UP-D6500



UP-D6400/D6300

Supplied accessories:	Floppy Disk (1) AC Power Cable (1) Card Tray (1) Operational Manual (1) Ink Ribbon Holder (1) Cleaning Roller Holder Set (1)
Consumables:	5UPR-6040 Color Ink Ribbon (CMYL) 250 prints × 5 rolls 5UPR-6080 Color Ink Ribbon (CMYKL) 200 prints × 5 rolls UPR-6025 Black and White Ribbon (K) Approx. 1000 prints × 1 roll
Optional accessories:	UPA-6002 Auto Card Stacker UPA-6003 Auto Card Feeder UPU-D65H Thermal Head

Specifications

Printing method:	Dye sublimation thermal transfer
Resolution:	300 dpi
Gradation:	256 gradations for Yellow, Magenta and Cyan
Printing time:	Approx. 40 seconds per side with CMYL ribbon
Interface:	SCSI-2 (UP-D6500 only), IEEE standard 1284
Card supply*[2]:	Approx. 125 cards with the optional UPA-6003 Auto Card Feeder (UP-D6500: 250 cards when using two of the optional UPA-6003 Auto Card Feeder)
Card stack*[2]:	Approx. 125 cards with the supplied card tray (UP-D6500: 250 cards when using the optional UPA-6002 Auto Card Stacker)
Power requirements:	220 to 240V, AC 120 V, 50/60 Hz
Power consumption:	AC 220 to 240V : 170 VA, AC 120 V : 130 VA
Dimensions:	350 × 260 × 257 mm (13 ⅞ × 10 ¼ × 10 ⅛ inches)
Mass:	11.5 kg (25 lb 6 oz)
Safety regulations:	EN 60950

Acceptable PVC Cards Specifications

Length:	85.47 to 93.00 mm (3 ⅜ × 3 21/32 inches)
Height:	53.92 to 60.00 mm (2 ⅛ × 2 11/32 inches)
Thickness*[5]:	0.3 to 1.5 mm (12 × 59 mils)
Colour:	Any colour card acceptable (except transparency)
Surface Material:	Dye sublimation compatible PVC (unlaminated)
Surface:	Gloss finish (polished)
Other:	No residue, dust or blemishes allowed
Magnetic stripe encoding standards:	ISO / IEC7811-2, -4, -5, -6 Coercivity 300/2750/4000 Öe
Smart card encoding standards:	ISO / IEC7816-1, -2, -3, -4 EMV, Protocol T=1.0

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*[1] For details, please consult your nearest Sony office.

*[2] In case of the card thickness is 0.76 mm.

*[3] In case of the card thickness is 0.76 mm and combining optional UPA-6002 Auto Card Stacker with two of UPA-6003 Auto Card Feeder.

*[4] Can be operated using the Windows 95 driver software.

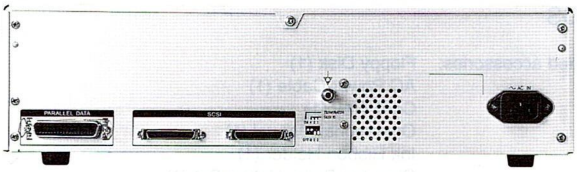
*[5] The initial setting is 0.76 mm. Some adjustments may be required.

UP-D5500

Digital colour printer

•Dye transfer sublimation thermal printing for near photographic prints with over 16 million colour reproduction •A high resolution of 300dpi provided by a high resolution thermal head with 2048 elements •A5 size colour prints provided in a mere 40 seconds •SCSI and IEEE-1284 (supporting the ECP mode) interfaces for mutual communication between the printer and the connected equipment •Compact and convenient operating design •Compatibility with Windows® 95/98[*1]/NT and Macintosh® OS

SONY
DigitalColorPrinter
STOP
PRINT
POWER
UP-D5500



Supplied accessories:	Ink ribbon holder Paper tray Paper cover AC power cable Operational manual Colour print pack (for 20 prints) Printer driver disk for Windows 95 and Macintosh computers
Optional accessories:	Colour printing pack (ink ribbon holder not included) UP-5510 Colour printing pack (ink ribbon holder not included) 5UP-5510 Colour printing pack UPC-5510C[*2] Additional ink ribbon holder UPA-5500

Specifications

Printing Performance

Printing Method:	Dye transfer sublimation thermal printing
Thermal Head:	2048 dots (300dpi)
Gradation:	256 level each for Yellow, Magenta and Cyan (16.7 million colors per dot)
Effective Print Pixels:	1,536 × 2,408 dots
Print Area:	132.1 × 176.1mm (5 1/4 × 7 inches)
Printing Time:	Approx. 40 sec.
Picture Memory:	2048 × 2048 × 8 bit per R/G/B
Interface Port:	SCSI IEEE-1284

General

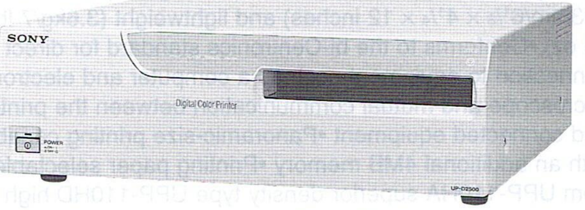
Paper Tray Capacity:	100 sheets
Power Requirements:	AC 100 to 240V, 50/60Hz
Power Consumption:	Max. 250W
Dimensions:	424(W) × 125(H) × 475(D)mm (excluding projecting parts) ($16\frac{3}{4} \times 5 \times 18\frac{3}{4}$ inches)
Mass:	17kg (37 lb 11 oz)
Safety Standards	EN60950, EN60601-1

[*1] Can be operated using the Windows 95 driver software. For operation details, please consult your nearest Sony office.
[*2] The UPC-5510C is not available in some areas. For further details, please consult your nearest Sony office.

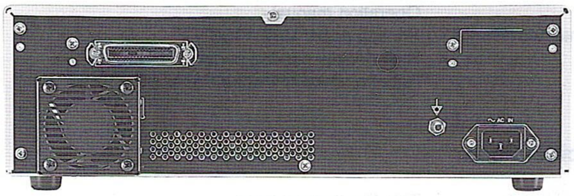
UP-D2500

Digital colour printer

•High quality print with digital process in the frame memory in 8-bit/256 gradations and over 16 million colours per pixel •High resolution of 310dpi, 1365(H) × 1024(V) dots •Near A6 size print (130 × 88mm/5⅛ × 3½ inches) in approx. 45 seconds •Easy-to-use operation with function menu display on an associated monitor •Standard IEEE 1284 interface for mutual communication between the printer and the connected equipment •200 Sheets paper feed capacity •Compatibility with Windows® 95/98*/NT and Macintosh® OS



Supplied accessories:	Colour printing pack (for 10 prints) Paper tray (1) Paper cover (1) AC power cable Operation manual Printer driver for Windows 95 OS and Macintosh OS
Optional accessories:	Colour printing pack UPC-2010 (for 200 prints) Black and white printing pack UPC-2020 (for 200 prints) Self-laminating colour printing pack UPC-2040A (for 120 prints) Colour postcard printing pack UPC-2070E (for 150 prints) Self-adhesive colour printing pack UPC-20S01 (for 200 prints) 16-split Self-adhesive pre-cut colour printing pack UPC-20S16 (for 200 prints) 4-split Self-adhesive pre-cut colour printing pack UPC-20S04 (for 200 prints) Paper ejector UPA-2001 Paper tray (for UPC-2040A and UPC-2070E) UPA-2002 Interface cable (for Macintosh) UPZ-2000M



Specifications

Printing method:	Dye transfer sublimation printing
Resolution:	310dpi or 155dpi selectable
Gradation:	256 gradations for Yellow, Magenta, Cyan Over 16.7 million colours per dot
Printing paper size:	130 × 88 mm (5⅛ × 3½ inches) (Self-laminating paper/Postcard: 148 × 100 mm)
Printed picture size:	Max. 112 × 84 mm (4½ × 3⅜ inches)
Picture elements:	1365 × 1024 dots
Picture memory:	2MB
Printing time:	Approx. 45 seconds (When using the UPC-2040A: Approx. 75 seconds)
Interface port:	IEEE standard 1284-1994 (Compatible, Compatible Nibble and ECP modes)
Paper tray capacity:	200 sheets
Power requirements:	220 to 240V, 50/60Hz
Power consumption:	Approx. 1.0A
Dimensions:	370(W) × 125(H) × 417(D) mm (14⅝ × 5 × 16½ inches)
Mass:	9.5 kg (23 lb 2 oz)
Safety regulations:	EN60950, EN60601-1 (TÜV)

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* Can be operated using the Windows 95 driver software.

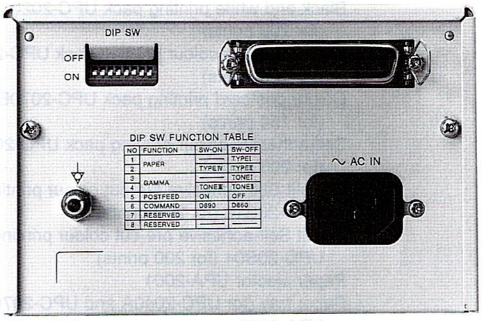
UP-D890

Digital graphic printer

•Monochrome digital graphic printer with 1024 picture element (horizontally) and 256 steps of gradation •A fast printing speed: approx 5.5 seconds •Compact (154 × 106 × 303mm/6$^{1}/_{8}$ × 4$^{1}/_{4}$ × 12 inches) and lightweight (3.6kg/7 lb 16 oz) •Conforms to the bi-Centronics standard for direct connection to equipment such as a computer and electronic microscope and mutual communication between the printer and connected equipment •Panoramic-size printing capable with an additional 4MB memory •Printing paper selectable from UPP-110HA superior density type UPP-110HD high density type or the UPP-110S normal type thermal paper •Three gradations selectable; Soft, Standard and Hard (when using the UPP-110HA or UPP-110HD high density thermal paper)

SONY
RECEIVING
PAPER EMPTY
FEED
OPEN/CLOSE
DIGITAL GRAPHIC PRINTER UP-D890

Supplied accessories:	AC power cable Paper roll UPP-110HA Head cleaning sheet Printer Driver for Windows 3.1/95 Operation manual
Optional accessories:	Printing paper UPP-110S High density printing paper UPP-110HD Superior Density Printer Paper UP-110HA


DIP SW
OFF
ON
DIP SW FUNCTION TABLE
NO
FUNCTION
SW-ON
SW-OFF
1
2
PAPER
TYPE I
TYPE IV
TYPE II
3
4
GAMMA
TONE I
TONE III
TONE II
5
POSTFEED
ON
OFF
6
COMMAND
D890
D860
7
RESERVED
8
RESERVED
AC IN

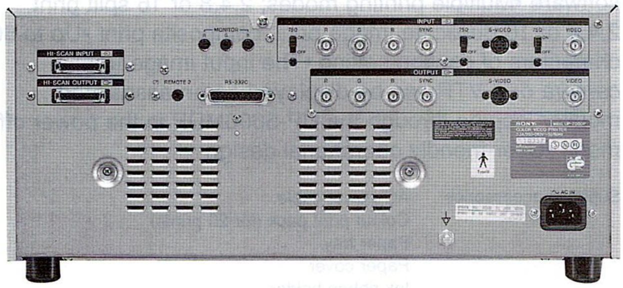
Specifications

Thermal head:	Thin film thermal head 1024 dots drive
Gradation:	256 grey levels
Printed picture size:	100 × 100 mm ±1.5% (1024 × 1024 dots)
Printing speed:	Approx. 5.5 s/print
Picture elements:	1024(H) × 1024(V) dots
Interface connector:	bi-Centronics standard (IEEE STD P1284 Reverse-Nibble and ECP) 36-pin Amphenol type
Power requirements:	AC 220 to 240V/120V, 50/60Hz
Power consumption:	Max. 120 W
Dimensions:	154(W) × 106(H) × 303(D) mm (6$^{1}/_{8}$ × 4$^{1}/_{4}$ × 12 inches)
Mass:	3.6 kg (8 lb)
Safety regulations:	EN60950, EN60601-1

UP-7300MDP

Colour video printer

•High quality full colour print with digital process in the frame memory in 8-bit/256 gradations, and over 16 million colours per pixel •Its thermal head, with 1280 picture element dots, reproduces a high quality output with a resolution of 6.4 dots/mm •A4 size print (210 × 297mm/ 8³/₈ × 11³/₄ inches) in approx. 125 seconds and a black and white image in approx. 60 seconds •OHP transparency prints for effective presentations •Multiscan capability; inputs over a wide range of horizontal scanning frequencies- 15kHz to 89kHz- is acceptable •Multiple inputs; four BNC connectors for 625 analogue RGB signal input, DIN 4-pin for Y/C input and a BNC connector for PAL composite signal input, and DN 50-pin multiple connector for analogue RGB high scan signal for connection with variety of computers and HDVS with optional cables •Menu operation with the function menu displayed on the printer's LCD and on an associated monitor •Set-up menu; horizontal and vertical picture size, H/V picture shift, aspect ratio, etc. •Up to 20 copies of consective printing capable •Various print modes; two, four, six, eight or sixteen different or duplicated image memory prints (625 line video images), four or six different image print mode (high scan images) •Remote control from a supplied wired or wireless remote control unit, an optional FS-20 foot switch, or an extemal PC



Supplied accessories:	Remote control unit (wired/wireless) Cable for remote control unit (5m) Ink ribbon holders for colour, B&W and OHP materials Paper tray Paper cover Battery SUM-3 (×2) AC power cable Operation and instruction manual
Optional Accessories	Colour print pack UPC-7010P (for 100 prints) Black and white print pack UPC-7020 (for 100 prints) OHP print pack UPC-7030 (for 100 prints) Foot switch FS-20 RS-232C cross cable SMF-1015 Video interface cable for Macintosh UPZ-7000M Video interface cable for IBM PS55, PS/2, PS/V UPZ-7000I Interface cable for workstation UPZ-7001, UPZ-7002, UPZ-7003

Specifications

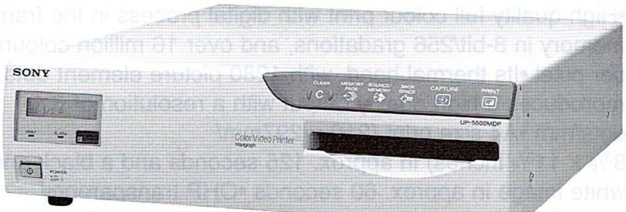
Printing method:	Dye transfer sublimation thermal printing
Thermal head:	1280 elements (6.4 dots/mm)
Printing paper size:	A4 (210 × 297 mm8³/₈ × 11³/₄ inches) using the optional UPC-7010P
Picture size:	<625/50 line signal> Max. 184 × 241mm (7¹/₄ × 9 ¹/₂ inches) <Hi-scan signal> Max. 190 × 246mm (7¹/₂ × 9³/₄ inches)
Gradations:	256 levels process (Yellow, Magenta, Cyan) over 16 million colours per pixel
Scanning frequency:	15kHz to 89kHz
Picture memory:	Six frame memories (9MB)
Printing time:	Approx. 125 seconds - Colour, Macintosh II print Approx. 60 seconds - B & W print
Input:	RGB analogue for Hi-Scan or HDVS signal*(DN 50-pin) RGB: 0.7Vp-p, 75Ω Sync: 1.0 to 5.0Vp-p, 75Ω RGB analogue (625 line system) signal* (BNC ×4) RGB: 0.7Vp-p, 75Ω, unbalanced Sync: 0.3 to 4.0Vp-p, negative, 75Ω, unbalanced S-Video (Y/C separate, DIN 4-pin S terminal) Y: 0.5 to 2.0Vp-p, sync negative, 75Ω, unbalanced C: 0.3Vp-p, 75Ω, unbalanced Composite video (BNC) CCIR/PAL 0.5 to 2.0Vp-p, sync negative, 75Ω, unbalanced
Output:	RGB analogue for Hi-Scan or HDVS signal (DN 50-pin)* RGB: 0.7Vp-p, 75Ω Sync: Through output RGB analogue signal (625 line scan) (BNC ×4) RGB: 0.7Vp-p, 75Ω, unbalanced Sync: 1.0Vp-p, negative, 75Ω, unbalanced S-Video (Y/C separate, DIN 4-pin S terminal) Y: 1.0Vp-p, sync negative, 75Ω, unbalanced C: 0.3Vp-p, 75Ω, unbalanced Composite video (BNC) CCIR/PAL 1.0Vp-p, sync negative, 75Ω, unbalanced
Control terminal:	RS-232C (D-sub 25-pin) REMOTE 1: Remote control jack (special mini) REMOTE 2: Foot switch jack (stereo mini)
Power requirement:	AC 200 to 240V, 50/60Hz
Power consumption:	290W
Dimensions:	424(W) × 177(H) × 490(D)mm (16³/₄ × 7 × 19³/₈ inches)
Mass:	Approx. 19.2kg (42 lb)
Safety regulations:	EN60950, EN6060-1, BZT

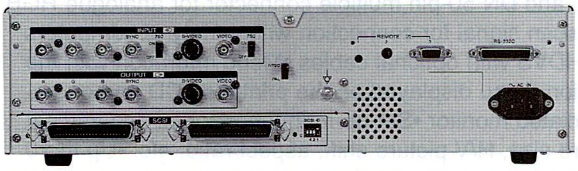
* Note: The UP-7300MDP can accept sync-on-G or external sync automatically.

UP-5600MDP

Colour video printer

•High quality print with digital process in the frame memory in 8-bit/256 gradations and over 16 million colours per pixel •A thermal head with 2048 elements assures high quality output with a resolution of 300 dots per inch •Four frame memories (Eight frame memory is possible with optional UPK-5500 frame memory board) •A5 size print (210 × 148mm/8⅜ × 5⅞ inches) in approx. 34 seconds •Easy-to-use menu operation with function menu display on the printer's LCD and on an associated monitor •Worldwide use (accepts CCIR/PAL video, EIA/NTSC video, 625 analogue RGB, 525 analogue RGB) •Multiple video inputs; analogue RGB, Y/C and composite video •Remote control operation from optional wired/wireless remote control units RM-5500/91 and foot switch FS-20/30 •RS-232C port for external remote control from a PC •Full colour digital printing is possible using the optional four frame memory board UPK-5500 and SCSI interface board UPK- 5502SC which includes A/D and D/A conversion function and printer driver software •Multiple printing modes; 2,4,8 or 16 split print, 2,4,8 or 16 duplicate image print, composite print •Up to 80 characters of caption setting •The input image from a camera or a VTR can be displayed on an assosiated monitor looping through the UP-5600MDP in the power off mode •User-friendly operational design




UP-5600MDP with UPK-5502SC

Supplied accessories:	AC power cable Colour print pack (for 20 prints) Paper tray Paper cover Ink ribbon holder Operation manual
Optional accessories:	Four frame memory board UPK-5500 Digital interface board UPK-5502SC Wired/Wireless remote commander RM-5500 Remote control unit RM-91 Foot switch FS-30 Foot switch FS-20 Colour printing pack UPC-5510/5UPC-5510* Colour printing pack UPC-5510C Cassette for UPC-5510/5UPC-5510 UPA-5500

*The UPC-5510/5UPC-5510 is not supplied with a cassette.

Specifications

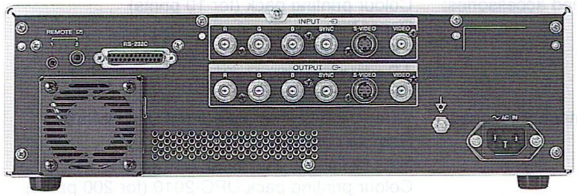
Printing method:	Dye transfer sublimation thermal printing
Thermal head:	6.72 dots/mm (300dpi dots)
Printing paper size:	148 × 210mm (5⅞ × 8⅜ inches)
Picture size:	124.8 × 165.1mm (5 × 6½ inches) - PAL Full Print Mode 125.8 × 165.1mm (5 × 6½ inches) - NTSC Full Print Mode 132.1 × 176.1mm (5¼ × 7 inches) - Digital Printing (with optional UPK-5502SC)
Picture elements:	1176 lines × 1920 dots - PAL Full Print Mode 976 lines × 1920 dots - NTSC Full Print Mode 1536 lines × 2048 dots - Digital Printing (with optional UPK-5502SC and UPK-5500)
Gradations:	256 levels process (Yellow, Magenta, Cyan) Over 16 million colours per pixel
Picture memory:	4 frame memories, 2048 × 1024 × 8 bits × 3 (6MB) 8 frame memories with optional UPK-5500, 2048 × 2048 × 8 bits × 3 (12MB)
Printing time:	Approx. 34s - PAL Full Size Print Mode Approx. 30s - NTSC Full Size Print Mode Approx. 38s - Digital printing with optional UPK-5502SC
Input:	625 or 525 RGB analogue* (BNC × 4, R/G/B/Sync) RGB: 0.7Vp-p, 75Ω, unbalanced Sync: 0.3 to 4.0Vp-p, sync negative, 75Ω, unbalanced S-Video (Y/C Separate, 4-pin S terminal) CCIR/PAL Y: 1.0Vp-p, sync negative, 75Ω, unbalanced C: 0.3Vp-p, 75Ω, unbalanced EIA/NTSC Y: 1.0Vp-p, sync negative, 75Ω, unbalanced C: 0.286Vp-p, 75Ω, unbalanced Composite video (BNC) CCIR/PAL or EIA/NTSC 1.0Vp-p, sync negative, 75Ω, unbalanced**
Output:	625 or 525 RGB analogue* (BNC × 4, R/G/B/Sync) RGB: 0.7Vp-p, 75Ω, unbalanced Sync: 1.0Vp-p, sync negative, 75Ω, unbalanced S-Video (Y/C Separate, 4-pin S terminal) CCIR/PAL Y: 1.0Vp-p, sync negative, 75Ω, unbalanced C: 0.3Vp-p, 75Ω, unbalanced EIA/NTSC Y: 1.0Vp-p, sync negative, 75Ω, unbalanced C: 0.286Vp-p, 75Ω, unbalanced Composite video (BNC) CCIR/PAL or EIA/NTSC 1.0Vp-p, sync negative, 75Ω, unbalanced**
Interface:	(with optional UPK-5502SC) SCSI 1 channel 50-pin amphenol (×2)
Control terminal:	Remote control jack (Special mini) for optional RM-5500 Foot switch-1 (stereo mini) for optional FS-20 Foot switch-2 (D-sub 9-pin) for optional FS-30 RS-232C interface port (D-sub 25-pin)
Power requirement:	AC220V to 240V, 50/60Hz
Power consumption:	Max. 1.2A
Dimensions:	424(W) × 125(H) × 475(D)mm (16¾ × 5 × 18¾ inches)
Mass:	14kg (30 lb 14oz)
Safety regulations:	EN60601-1 (TÜV)
EMI regulations:	EMC Directive
Note:	*The UP-5600MDP can accept sync-on-G or external sync automatically. ** CCIR/PAL or EIA/NTSC signals are selected using the input selector on the unit's rear panel.

UP-2850P/2800P

Colour video printer

•UP-2800P: one frame memory, UP-2850P: four frame memories •High quality print with digital process in the frame memory in 8-bit/256 gradations and over 16 million colours per pixel •High resolution of 310dpi, 860(H) × 976(V) dots •Near A6 size print (130 × 88mm/5⅛ × 3½ inches) in approx. 35 seconds •Multiple print modes: split image, duplicate image and Instant Pass Photo (IPP) Mode •Easy-to-use operation with function menu display on the built-in LCD or the associated monitor •Remote control function by an optional foot switch FS-20/36, remote control unit RM-91 or an external computer via an RS-232C interface •Multiple video input: analogue RGB, Y/C and composite video •200 Sheets paper feed capacity •Up to 48 characters for caption setting •The input image from a camera or a VTR can be displayed on an associated monitor through the UP-2850P/2800P in the power off mode

SONY
Color Video Printer
POWER
UP-2850P



Supplied accessories:	Colour printing pack (for 10 prints) Paper tray (1) Paper cover (1) AC power cable Operation manual
Optional accessories:	Wired/wireless remote control Unit RM-5500 Remote control unit RM-91 Foot switch FS-20/FS-36 Colour printing pack UPC-2010 (for 200 prints) Black and white printing pack UPC-2020 (for 200 prints) Colour postcard printing pack UPC-2070E (for 150 prints) Self-adhesive colour printing pack UPC-20S01 (for 200 prints) 16-split self-adhesive pre-cut colour printing pack UPC-20S16 (for 200 prints) 4-split Self-adhesive pre-cut colour printing Pack UPC-20S04 (for 200 prints) Paper ejector UPA-2001 Paper tray (for UPC-2040A and UPC-2070E) UPA-2002

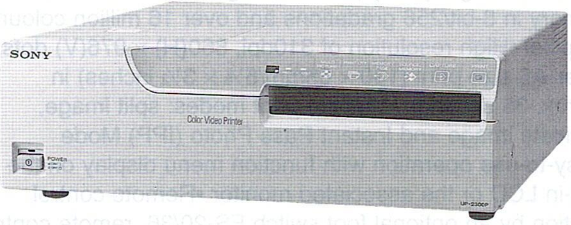
Specifications

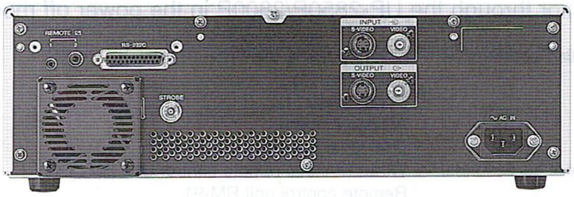
Printing method:	Dye transfer sublimation printing
Thermal head:	1024 elements (12.2 dots/mm)
Gradation:	256 gradations for yellow, Magenta, Cyan Over 16.7 million colours per dot
Printing paper size:	130 × 88 mm ($5^{1}/_{8}$ × $3^{1}/_{2}$ inches)
Printed picture size:	Max. 110 × 80 mm ($4^{3}/_{8}$ × $3^{1}/_{4}$ inches) (Self-laminating paper: Max. 135 × 70 mm ($5^{3}/_{8}$ × $2^{7}/_{8}$ inches))
Picture elements:	860 × 976 dots
Picture memory:	UP-2850P: Four frame memories UP-2800P: One frame memory
Printing time:	Approx. 35 seconds
Inputs:	Y/C separate (4-pin S terminal) Y: 1.0Vp-p, sync negative, 75Ω, unbalanced C: 0.3Vp-p, 75Ω, unbalanced Composite video (BNC), CCIR/PAL 1.0Vp-p sync negative, 75Ω, unbalanced Analogue RGB (BNC × 4) RGB: 0.7Vp-p, 75Ω, unbalanced Sync: 0.2 to 4.0Vp-p, negative, 75Ω, unbalanced
Outputs:	Y/C separate (4-pin S terminal) Y: 1.0Vp-p, sync negative, 75Ω, unbalanced C: 0.3Vp-p, 75Ω, unbalanced Composite video (BNC), CCIR/PAL 1.0Vp-p sync negative, 75Ω, unbalanced Analogue RGB (BNC × 4) RGB: 0.7Vp-p, 75Ω, unbalanced Sync: 1.0Vp-p, negative, 75Ω unbalanced
Control terminals:	RS-232C (D-sub 25-pin) Remote 1 (Special mini) for optional remote control unit RM-5500 Remote 2 (Stereo mini) for optional remote control unit RM-91 or foot switch FS-20/36
Power requirements:	220 to 240V, 50/60Hz
Power consumption:	Max. 1.0A
Dimensions:	370(W) × 125(H) × 417(D) mm ($14^{5}/_{8}$ × 5 × $16^{1}/_{2}$ inches)
Mass:	10.5 kg (23 lb 2 oz)
Safety regulations:	EN60950, EN60601-1 (TÜV)

UP-2330P/2300P

Colour video printer

•High quality print with digital process in the frame memory in 8-bit/256 gradations and over 16 million colours per pixel •High resolution of 310dpi, 860(H) × 976(V) dots•Near A6 size print (130 × 88mm/5$^{1}/_{8}$ × 3$^{1}/_{2}$ inches) in approx. 35 seconds •Multiple print modes: split image, duplicate image and Instant Pass Photo (IPP) Mode •Easy-to-use operation with function menu display on an associated monitor •Remote control function by an optional foot switch FS-20/36, remote control unit RM-91 or an external computer via an RS-232C interface •Y/C and composite video input available •200 Sheets paper feed capacity •Up to 48 characters for caption setting •The input image from a camera or a VTR can be displayed on an associated monitor through the UP-2330P/2300P in the power off mode





Supplied accessories:	Colour printing pack (for 10 prints) Paper tray (1) Paper cover (1) AC power cable Operation manual
Optional accessories:	Wired/wireless remote control Unit RM-5500 Remote control unit RM-91 Foot switch FS-20/FS-36 Colour printing pack UPC-2010 (for 200 prints) (UP-2300P only) Black and white printing pack UPC-2020 (for 200 prints) (UP-2300P only) Self-laminating colour printing pack UPC-2040A (for 120 prints) (UP-2330P only) Colour postcard printing pack UPC-2070E (for 150 prints) Self-adhesive colour printing pack UPC-20S01 (for 200 prints) 16-split self-adhesive pre-cut colour printing pack UPC-20S16 (for 200 prints) 4-split Self-adhesive pre-cut colour printing Pack UPC-20S04 (for 200 prints) Paper ejector UPA-2001 Paper tray (for UPC-2040A and UPC-2070E) UPA-2002

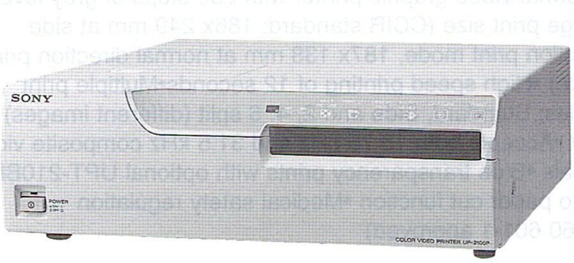
Specifications

Printing method:	Dye transfer sublimation printing
Thermal head:	1024 elements (12.2 dots/mm)
Gradation:	256 gradations for yellow, Magenta, Cyan Over 16.7 million colours per dot
Printing paper size:	130 × 88 mm (5$^{1}/_{8}$ × 3$^{1}/_{2}$ inches)
Printed picture size:	Max. 110 × 80 mm (4$^{3}/_{8}$ × 3$^{1}/_{4}$ inches) (Self-laminating paper: Max. 135 × 70 mm (5$^{3}/_{8}$ × 2$^{7}/_{8}$ inches))
Picture elements:	860 × 976 dots
Picture memory:	One frame memory
Printing time:	Approx. 35 seconds (70 seconds when using UPC-2040A)
Inputs:	Y/C separate (4-pin S terminal) Y: 1.0Vp-p, sync negative, 75Ω, unbalanced C: 0.3Vp-p, 75Ω, unbalanced Composite video (BNC), CCIR/PAL 1.0Vp-p sync negative, 75Ω, unbalanced
Outputs:	Y/C separate (4-pin S terminal) Y: 1.0Vp-p, sync negative, 75Ω, unbalanced C: 0.3Vp-p, 75Ω, unbalanced Composite video (BNC), CCIR/PAL 1.0Vp-p sync negative, 75Ω, unbalanced
Control terminals:	RS-232C (D-sub 25-pin) Remote 1 (Special mini) for optional remote control unit RM-5500 Remote 2 (Stereo mini) for optional remote control unit RM-91 or foot switch FS-20/36
Power requirements:	220 to 240V, 50/60Hz
Power consumption:	Max. 1.0A
Dimensions:	370(W) × 125(H) × 417(D) mm (14$^{5}/_{8}$ × 5 × 16$^{1}/_{2}$ inches)
Mass:	10 kg (22 lb 1 oz)
Safety regulations:	EN60950, EN60601-1 (TÜV)

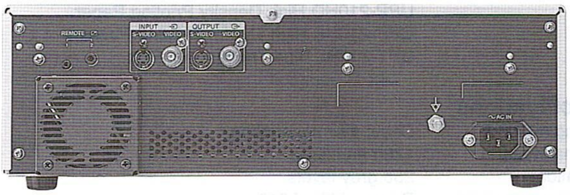
UP-2100P

Colour video printer

•High quality print with digital process in the frame memory in 8-bit/256 gradations and over 16 million colours per pixel •High resolution of 182dpi, 720(H) × 564(V) dots •Near A6 size print (130 × 88mm/$5^{1}/_{8}$ × $3^{1}/_{2}$ inches) in approx. 35 seconds •Easy-to-use operation with function menu display on an associated monitor •Remote control function by an optional foot switch FS-20/36, remote control unit RM-91 or an external computer via an RS-232C interface •Y/C and composite video input available •200 Sheets paper feed capacity •Up to 48 characters for caption setting •The input image from a camera or a VTR can be displayed on an associated monitor through the UP-2100P in the power off mode



Supplied accessories:	Colour printing pack (For 10 Prints) Paper tray (1) Print tray (1) AC power cable Operation manual
Optional accessories:	Wired/wireless remote control unit RM-5500 Remote control unit RM-91 Foot switch FS-20/FS-36 Colour printing pack UPC-2010 (for 200 prints)



Specifications

Printing method:	Dye transfer sublimation printing
Thermal head:	608 elements (7.2 dots/mm)
Gradation:	256 gradations for yellow, Magenta, Cyan Over 16.7 million colours per dot
Printing paper size:	130 × 88 mm ($5^{1}/_{8}$ × $3^{1}/_{2}$ inches)
Printed picture size:	Max. 110 × 80 mm ($4^{3}/_{8}$ × $3^{1}/_{4}$ inches)
Picture elements:	720 × 564dots
Picture memory:	One frame memory
Printing time:	Approx. 60 seconds
Inputs:	Y/C separate (4-pin S terminal) Y: 1.0Vp-p, sync negative, 75Ω, unbalanced C: 0.3Vp-p, 75Ω, unbalanced Composite video (BNC), CCIR/PAL 1.0Vp-p sync negative, 75Ω, unbalanced
Outputs:	Y/C separate (4-pin S terminal) Y: 1.0Vp-p, sync negative, 75Ω unbalanced C: 0.3Vp-p, 75Ω, unbalanced Composite video (BNC), CCIR/PAL 1.0Vp-p sync negative, 75Ω, unbalanced
Control terminals:	Remote 1 (Special mini) for optional remote control unit RM-5500 Remote 2 (Stereo mini) for optional remote control unit RM-91 or foot switch FS-20/36
Power requirements:	220 to 240V, 50/60Hz
Power consumption:	Max. 1.0A
Dimensions:	370(W) × 125(H) × 417(D) mm ($14^{5}/_{8}$ × 5 × $16^{1}/_{2}$ inches)
Mass:	9 kg (19 lb 13 oz)
Safety regulations:	EN60950, EN60601-1 (TÜV)

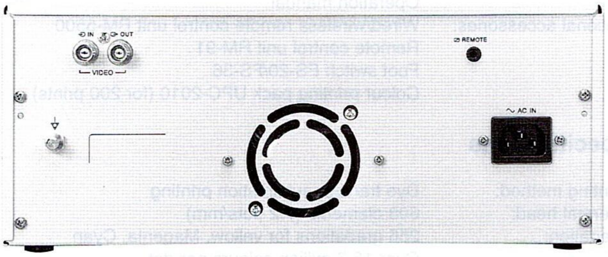
UP-980CE (CCIR/EIA)

Monochrome video graphic printer

•Thermal video graphic printer with 256 steps of grey level •Large print size (CCIR standard: 186x 249 mm at side direction print mode, 187x 138 mm at normal direction print mode) •High speed printing of 12 seconds•Multiple print modes; Standard, Side and 2, 4, 6 split (different images) print •Accepts both 15.75 kHz and 31.5 kHz composite video signals •Blue transparency prints with optional UPT-210BL •Auto paper cut function •Medical safety regulation (EN60 601-1 approved)

SONY
POWER
VIDEO GRAPHIC PRINTER UP-980CE

Supplied accessories:	Paper Roll (UPP-210HD) (1) Head Cleaning Sheet (1) AC Power Cable (1) BNC Cable (1) Operation Manual (1)
Optional accessories:	RM-91 Remote Control Unit FS-20 Foot Switch UPP-210HD High Density Printing Paper UPP-210SE High Quality Printing Paper UPT-210BL Blue Transparent Film



Specifications

Printing method:	Direct thermal printing	
Thermal head:	1280 elements	
Gradation:	256 grey levels	
Printing paper size:	Paper width of 210 mm	
Printed picture size:	CCIR	EIA
Standard mode:	187 × 138 mm (7 ⅜ × 5 ½ inches)	187 × 140 mm (W/H) (7 ⅜ × 5 ⅝ inches)
Side mode:	186 × 249 mm (7 ⅜ × 9 ⅞ inches)	188 × 249 mm (W/H) (7 ½ × 9 ⅞ inches)
Picture memory:	2048 × 2048 × 8-bit	
Printing time:	CCIR: Approx. 12 seconds EIA: Approx. 10 seconds	
Inputs:	CCIR or EIA composite video (BNC), 1.0 Vp-p 75 Ω /high impedance	
Outputs:	CCIR or EIA composite video (BNC), 1.0 Vp-p 75 Ω /high impedance	
Control terminals:	Remote (Stereo mini) for optional RM-91 Remote Control Unit or FS-20 Foot Switch	
Power requirements:	220 to 240 V, 120 V, 50/60 Hz	
Power consumption:	220 to 240 V: 1.3 A 120 V: 2.4 A	
Dimensions:	316 (W) × 132 (H) × 305 (D) mm (12 ½ × 5 ¼ × 12 ⅛ inches)	
Mass:	8 kg (17 lb 10 oz)	
Safety regulations:	EN60950, EN60601-1, CE (MDD, EMC. LVD)	

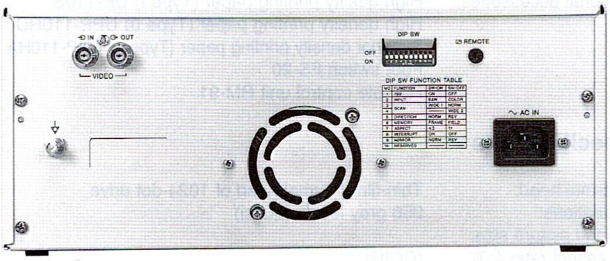
UP-960CE (CCIR/EIA)

Monochrome video graphic printer

•Thermal video graphic printer with 256 steps of grey level •Large print size (CCIR standard: 181 × 243 mm at side direction print mode, 190x 142 mm at normal direction print mode) •High speed printing of 12 seconds•Multiple print modes; Standard, Side and 2 split (different images) print •Accepts worldwide video signals for both CCIR and EIA •Medical safety regulation (EN60 601-1 approved)

SONY
POWER
VIDEO GRAPHIC PRINTER UP-960CE

Supplied accessories:	Paper Roll (UPP-210HD) (1) Head Cleaning Sheet (1) AC Power Cable (1) BNC Cable (1) Operation Manual (1)
Optional accessories:	RM-91 Remote Control Unit FS-20 Foot Switch UPP-210HD High Density Printing Paper UPP-210SE High Quality Printing Paper



Specifications

Printing method:	Direct thermal printing	
Thermal head:	1280 elements	
Gradation:	256 grey levels	
Printing paper size:	Paper width of 210 mm	
Printed picture size:	CCIR	EIA
Standard mode:	190 × 142 mm (7 ½ × 5 ⅝ inches)	190 × 144 mm (W/H) (7 ½ × 5 ¾ inches)
Side mode:	181 × 243 mm (7 ¼ × 9 ⅝ inches)	184 × 243 mm (W/H) (7 ¼ × 9 ⅝ inches)
Picture memory:	2048 × 1024 × 8-bit	
Printing time:	CCIR: Approx. 12 seconds EIA: Approx. 10 seconds	
Inputs:	CCIR or EIA composite video (BNC), 1.0 Vp-p 75 Ω /high impedance	
Outputs:	CCIR or EIA composite video (BNC), 1.0 Vp-p 75 Ω /high impedance	
Control terminals:	Remote (Stereo mini) for optional RM-91 Remote Control Unit or FS-20 Foot Switch	
Power requirements:	220 to 240 V, 120 V, 50/60 Hz	
Power consumption:	220 to 240 V: 1.3 A 120 V: 2.4 A	
Dimensions:	316 (W) × 132 (H) × 305 (D) mm (12 ½ × 5 ¼ × 12 ⅛ inches)	
Mass:	8 kg (17 lb 10 oz)	
Safety regulations:	EN60950, EN60601-1, CE (MDD, EMC. LVD)	

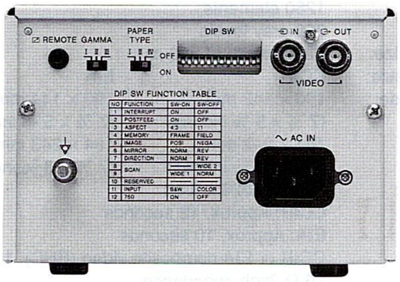
UP-890CE (CCIR/EIA)

Monochrome video graphic printer

•Thermal video graphic printer with quasi 256 steps of gray level •Small size and light weight •A fast printing speed of approx. four seconds •Automatic selection of CCIR/EIA video signal •High resolution printing of 1024 × 608dots (in Wide 2 scan mode) •Multiple print modes (Standard, Side, Normal/Small/Large/×1.5 Enlargement zoom)/ ×2 Enlargement(zoom) •Wide scanning function (Normal/ Wide 1/Wide 2 selectable) •4:3/1:1 aspect ratio selectable •Multiple copy function •Maximum 270 prints from one paper roll in POSTFEED OFF mode (230 prints in POSTFEED ON mode) •Frame/Field memory selectable •Positive/negative printing •Normal/reverse direction printing

SONY
STD
SIDE
NORMAL
SMALL
LARGE
ZOOM 1.5×
ZOOM 2×
CONTR
THRU
EE
BRIGHT
COPY
PRINT
PAPER EMPTY
OPEN/CLOSE
VIDEO GRAPHIC PRINTER UP-890CE

Supplied accessories:	AC power cable BNC cable (1.5m) Printing paper roll (UPP-110HA) Head cleaning sheet Operation manual
Optional accessories:	High quality printing paper (Type I) UP-110S High density printing paper (Type II) UPP-110HD Superior density printing paper (Type II) UPP-110HA Foot switch FS-20 Remote control unit RM-91


REMOTE
GAMMA
I II III
PAPER TYPE
I III IV
OFF
ON
DIP SW
IN
OUT
VIDEO
DIP SW FUNCTION TABLE
NO FUNCTION SW-ON SW-OFF
1 INTERRUPT ON OFF
2 POSTFEED ON OFF
3 ASPECT 4:3 1:1
4 MEMORY FRAME FIELD
5 IMAGE POSI NEGA
6 MIRROR NORM REV
7 DIRECTION NORM REV
8 SCAN WIDE 2
9 WIDE 1 NORM
10 RESERVED
11 INPUT B&W COLOR
12 75Ω ON OFF
AC IN

Specifications

Thermal head:	Thin-film thermal head of 1024-dot drive
Gradations:	256 grey levels (quasi)
Printed picture size: (at aspect ratio 4:3)	(CCIR) NORMAL: 90.4 × 68.2mm ($3^{5}/_{8}$ × $2^{3}/_{4}$ inches) WIDE1: 95.1 × 70.9mm ($3^{3}/_{4}$ × $2^{7}/_{8}$ inches) WIDE2: 100.4 × 74.0mm (4 × 3 inches) (EIA) NORMAL: 90.4 × 69.0mm ($3^{5}/_{8}$ $2^{3}/_{4}$ inches) WIDE1: 95.1 × 71.6mm ($3^{3}/_{4}$ × $2^{7}/_{8}$ inches) WIDE2: 100.4 × 74.2mm (4 × 3 inches)
Effective pixels:	(CCIR) NORMAL: 922 dots × 560 lines WIDE1: 970 dots × 582 lines WIDE2: 1024 dots × 608 lines (EIA) NORMAL: 922 dots × 472 lines WIDE1: 970 dots × 490 lines WIDE2: 1024 dots × 508 lines
Printing speed:	Approx. four seconds/screen - Standard Print Mode Approx. seven seconds/screen - Side Print Mode
Picture memory:	1024 × 768 × 6 bits
Input/Output:	Video IN: BNC, CCIR or EIA composite video signal, 1.0Vp-p, 75Ω/high impedance selectable Video OUT: BNC, Loop through or E to E selectable
Remote:	Remote: Stereo mini jack, for the optional foot switch FS-20 or remote control unit RM-91
Power requirements:	AC 220 to 240V, 50/60Hz
Power consumption:	Max. 110W
Dimensions:	Approx. 154(W) × 106(H) × 303D)mm ($6^{1}/_{8}$ × $4^{1}/_{4}$ × 12 inches)
Mass:	3.5kg (7 lb 11 oz)
Safty reguration:	EN60950, EN60601-1

Print Media at a Glance

Size	Description	Model	Print sheets/pack	UP-D9500	YP-D9000		
A3++	Dye Sublimation Print Paper	UPP-9510	3 packs x 60	0	0		
	Dye Sublimation Colour Ink Ribbon	UPR-9510	for 180 prints	0	0		
	Variable Dot Print Paper	UPP-9550	3 packs x 60	0	0		
	Variable Dot Colour Ink Ribbon	UPR-9550	for 180 prints	0	0		
A4++	Dye Sublimation Print Paper	UPP-9511	4 packs x 60	0	0		
	Dye Sublimation Colour Ink Ribbon	UPR-9511	for 240 prints	0	0		
	Variable Dot Print Paper	UPP-9551	4 packs x 60	0	0		
	Variable Dot Colour Ink Ribbon	UPR-9551	for 240 prints	0	0		
	Ink Ribbon Holder (with cover)	UPA-9500		0	0		
	Description	**Model**	**Print sheets/pack**	**UP-D70A**	**UP-D8800***	**UP-7300MDP**	
A4	Colour Print Pack	UPC-8810	100	0	0		
	Colour Print Pack	UPC-7010	100			0	
	B&W Print Pack	UPC-8820	100	0	0		
	B&W Print Pack	UPC-7020*/7020A	100			0	
	Self-Laminating Colour Print Pack	UPC-740	72	0			
	OHP Transparency Print Pack	UPC- 8830*	100		0		
	OHP Transparency Print Pack	UPC- 7030	100			0	
	Self-Laminating Colour Print Pack	UPC-8840*/8840A	70	0	0		
A4+	Colour Print Pack	UPC-8817	100	0	0		
	Self-Laminating Colour Print Pack	UPC-747	72	0			
	Description	**Model**	**Print sheets/pack**	**UP-D5500**	**UP-5600MDP**		
A5	Colour Print Pack	UPC-5510	200	0	0		
	Colour Print Pack	5UPC-5510	5 packs x 200	0	0		
	Ink Ribbon Holder for UPC-UPC-5510/5UPC-5510	UPA-5500		0	0		
	Colour Print Pack	UPC-5510C	200	0	0		
	OHP Transparency Print Pack	UPC-5530*	100		0		
	Description	**Model**	**Print sheets/pack**	**UPX-2000/UP-D2500**	**UP-2850P/2800P/2300P**	**UP-2330P**	**UP-2100P**
A6	Colour Print Pack	UPC-2010	200	0	0		0
	B&W Print Pack	UPC-2020	200	0	0		
	Self-Adhesive Stickers Print Pack	UPC-20S01**	200	0	0	0	
	4-Split Self-Adhesive Stickers Print Pack	UPC-20S04**	200	0	0	0	
	16-Split Self-Adhesive Stickers Print Pack	UPC-20S16	200	0	0	0	
	Self-Laminating Colour Print Pack	UPC-2040A**	120	0		0	
	Colour Postcard Print Pack	UPC-2070E	150	0	0	0	
ID Card	**Description**	**Model**	**Print sheets/pack**	**UP-D6500/D6400/D6300**	**UP-D6600***		
	Colour Ink Ribbon (CMYL)	5UPR-6040	5 packs x 250	0	0		
	Colour Ink Ribbon (CMYKL)	5UPR-6080	5 packs x 200	0	0		
	Black and White Ribbon (K)	UPR-6025	approx. for 1000 prints	0	0		
	Description	**Model**	**Paper length/roll**	**UP-980CE**	**UP-960CE**	**UP-930*/910***	
A4	Blue Transpacency Film	UPT-210BL	12.5 m	0			
Width	High Density Print Paper	UPP-210HD	25 m	0	0	0	
	High Quality Print Paper	UPP-210SE	25 m	0	0	0	
	High Density Print Paper	UPP-216HD	25 m			0	
	High Quality Print Paper	UPP-216SE	25 m			0	
	Description	**Model**	**Paper length/roll**	**UP-D890/890CE**	**UP-D860E*/860CE***		
A6	Superior Density Print Paper	UPP-110HA	18 m	0			
Width	High Density Print Paper	UPP-110HD	20 m	0	0		
	High Quality Print Paper	UPP-110S	20 m	0	0		

Print Media at a Glance (for discontinued printers)

Size	Description	Model	Print sheets/pack	UP-5000 series*	
A5	Colour Print Pack	UPC-5010A	100	0	
	Colour Print Pack	UPC-5010P	100	0	
	Colour Print Pack	10UPC-5010S	10 packs x 100	0	
	Ink Ribbon Holder for 10UPC-5010S	UPA-5000		0	
	B&W Print Pack	UPC-5020A	100	0	
	OHP Transparency Print Pack	UPC-5030	50	0	
	Description	**Model**	**Print sheets/pack**	**UP-1000 series***	**UP-3000 series***
A6	Colour Print Pack	UPC-1010	100	0	
	Colour Print Pack	20UPC-1010	20 packs x 100	0	
	Colour Print Pack	UPC-3010	80		0
	B&W Print Pack	UPC-1020	100	0	
	B&W Print Pack	UPC-3020	80		0
	4-Split Self-Adhesive Stickers Print Pack	UPC-S04**	100	0	
	16-Split Self-Adhesive Stickers Print Pack	UPC-S16**	100	0	
	16-Split Self-Adhesive Stickers Print Pack	20UPC-S16**	20 packs x 100	0	
	Self-Laminating Colour Print Pack	5UPC-1040*	5 packs x 75	0	
	Self-Laminating Colour Print Pack	5UPC-1040A**	5 packs x 75	0 (1200IVP/1200EPM only)	
	Self-Laminating Colour Print Pack	5UPC-3040	5 packs x 60		0 (3000EP only)
	Colour Postcard Paper	20UPP-1070	20 packs x 75	0	
	Colour Postcard Cartridge	20UPR-1070	for 1500 prints	0	

Foot Switch/Remote Commander at a Glance

Type	Descripion	Model	UP-7300MDP	UP-5600MDP	UP-2850P/2800P/2330P/2300P/2100P	UP-980CE/960CE/890CE
Foot	Simple Foot Switch	FS-20	0	0	0	0
Switch	Multiple Function Foot Switch	FS-30		0		
	Simple Foot Switch	FS-36			0	
Remote	Simple Remote Commander	RM-91	0	0	0	0
Commander	Multiple Function Remote Commander	RM-5500		0	0	

STILL IMAGE PRODUCTS

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* Production of these products has been discontinued. This information has been included to assist customers who are still using this media.
** For details, please consult your nearest Sony office.

UPP-9510

A3++ size Dye Sublimation Print Paper

- A3++ size Dye Sublimation Print Paper for UP-D9500/YP-D9000

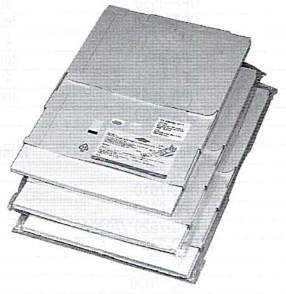
Contents: 3 packs of 60 sheets of print paper
Paper size: 523 × 330 mm (20 ⅝ × 13 inches)

UPR-9510

A3++ size Dye Sublimation Colour Ink Ribbon

- A3++ size Dye Sublimation Colour Ink Ribbon for UP-D9500/YP-D9000

Contents: 1 roll of ink ribbon for 180 print



UPP-9510

UPR-9510

UPP-9511

A4++ size Dye Sublimation Print Paper

- A4++ size Dye Sublimation Print Paper for UP-D9500/YP-D9000

Contents: 4 packs of 60 sheets of print paper
Paper size: 330 × 307 mm (13 × 12 ⅛ inches)

UPR-9511

A4++ size Dye Sublimation Colour Ink Ribbon

- A4++ size Dye Sublimation Colour Ink Ribbon for UP-D9500/YP-D9000

Contents: 1 roll of ink ribbon for 240 print

UPP-9511

UPR-9511

UPP-9550

A3++ size Variable Dot Print Paper

- A3++ size Variable Dot Print Paper for UP-D9500/YP-D9000

Contents: 3 packs of 60 sheets of print paper
Paper size: 523 × 330 mm (20 ⅝ × 13 inches)

UPR-9550

A3++ size Variable Dot Colour Ink Ribbon

- A3++ size Variable Dot Colour Ink Ribbon for UP-D9500/YP-D9000

Contents: 1 roll of ink ribbon for 180 print

UPP-9551

A4++ size Variable Dot Print Paper

- A4++ size Variable Dot Print Paper for UP-D9500/YP-D9000

Contents: 4 packs of 60 sheets of print paper
Paper size: 330 × 307 mm (13 × 12 ⅛ inches)

UPR-9551

A4++ size Variable Dot Colour Ink Ribbon

- A4++ size Variable Dot Colour Ink Ribbon for UP-D9500/YP-D9000

Contents: 1 roll of ink ribbon for 240 print

UPA-9500

Ink Ribbon Holder

- Ink ribbon holder for UPR-9510/9511/9550/9551

UPK-9500

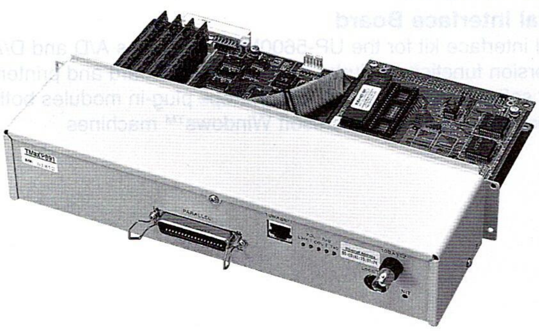
Add-on Memory Kit

•Additional 32MB memory for the UP-D9500/YP-D9000
•With this kit, the UP-D9500/YP-D9000 will be expandable up to 128MB of picture memory.

P891*

Colour Connectivity Controller

•PostScript printing option for the UP-D70A •Provides PostScript printing compatible with the PostScript Level 2 interpreter
•Applicable the Adobe Type 1 and LaserWriter compatible 35 fonts
•Built-in hard disk for font down loading •Standard 32MB RAM for transferred data processing from the connected computer
•Uses the Intel i960CF processor •Multiple interface facility including NetWare, TCP/IP and EtherTalk for platform independence
•Spooling capability



Note: P891 is manufacturered by Topmax Corporation.
Note: P891 is not available in some areas.
For details, please consalt your nearest Sony office.

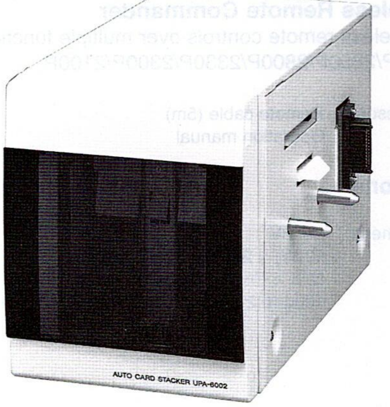
UPA-6002

Auto Card Stacker

•Auto card stacker for UP-D6500/D6400/D6300 high volume applications •Stores up to approx. 125[*1] (UP-D6500: 250[*2]) cards after production

Dimensions:	138 (W) × 175 (H) × 257 (D) mm (5 ½ × 7 × 10 ⅛ inches)

[*1] In case of the card thickness is 0.76 mm.
[*2] In case of the card thickness is 0.76 mm and combining with two of UPA-6003 Auto Card Feeder.



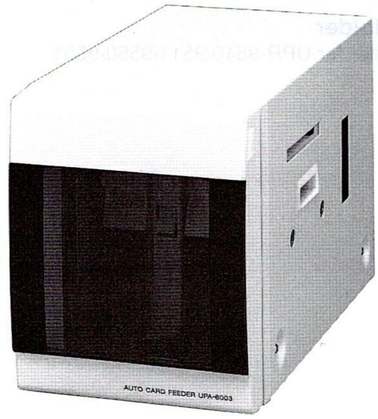
UPA-6003

Auto Card Feeder

•Auto card feeder for UP-D6500/D6400/D6300 high volume applications •Holds up to approx. 125[*1] (UP-D6500: 250[*2]) cards ready for printing and laminating

Dimensions: 138 (W) × 175 (H) × 257 (D) mm
(5 ½ × 7 × 10 ⅛ inches)

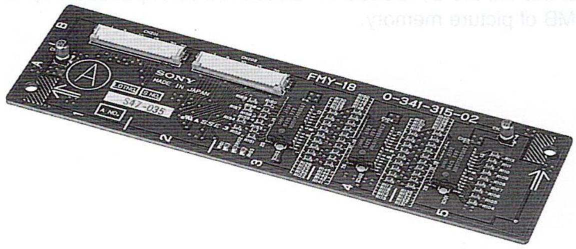
[*1] In case of the card thickness is 0.76 mm.
[*2] In case of the card thickness is 0.76 mm an using two of UPA-6003 Auto Card Feeder.



UPK-5500

Four Frame Memory Board

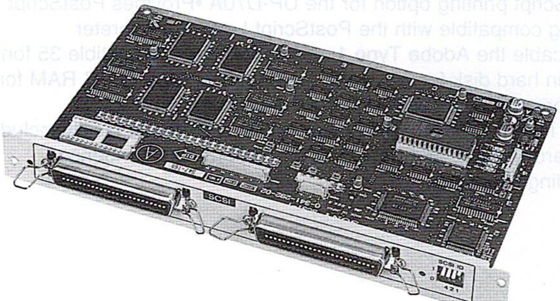
•Additional four frame memories for the UP-5600MDP •With this board, the internal frame memory of the UP-5600MDP can be expanded to eight frame memories



UPK-5502SC

Digital Interface Board

•SCSI interface kit for the UP-5600MDP •Provides A/D and D/A conversion function •Includes SCSI interface board and printer driver software which covers PhotoShop® plug-in modules both for Apple® Macintosh® and Microsoft Windows™ machines



RM-5500

Wired/Wireless Remote Commander

•Wired or wireless remote controls over multiple functions of the UP-5600MDP/2850P/2800P/2330P/2300P/2100P

Supplied accessory: Remote cable (5m)
Operation manual

Specifications

Power requirement: DC 3V
Dimensions: 62(W) × 20(H) × 175(L)mm
($2\frac{1}{2} \times \frac{27}{32} \times 7$ inches)
Mass: 100g (0.2 lb)

SONY
REMOTE CONTROL UNIT RM-5500

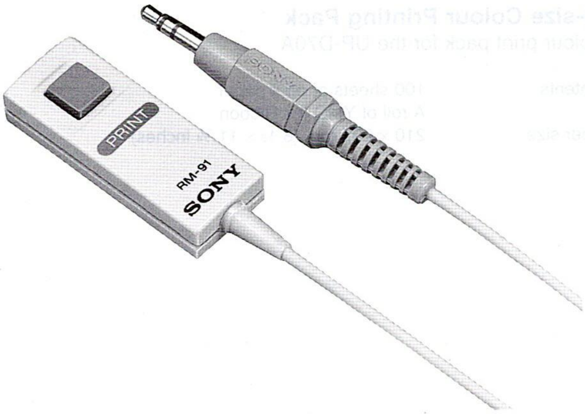
2-4 Printer accessories

RM-91

Remote Control Unit

•To record or print an image on a still video recorder or a video printer

Connector:	Stereo mini
Cable length:	5m



FS-30

Foot Switch

•Multiple function controls over the UP-5600MDP connected through the D-Sub 9-pin remote interface.

Supplied accessory:	Operation manual

Specifications

Terminal:	D-sub 5-pin
Dimensions:	337.3(W) × 46.1(H) × 128.0(D)mm ($13^{3}/_{8} \times 1^{7}/_{8} \times 5^{1}/_{8}$ inches)
Mass:	1.0kg (2 lb 3 oz)

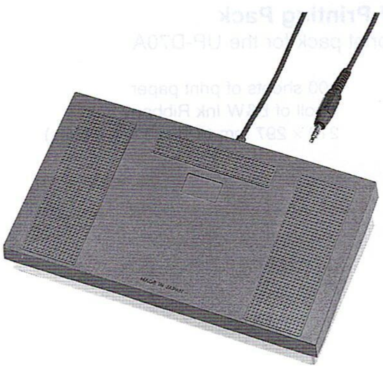
FS-36

Foot Switch

• Foot switch for UP-2850P/2800P/2330P/2300P/2100P

Specifications

Terminal:	Stereo mini
Cable length:	5m
Dimensions:	175(W) × 53(H) × 105(D) mm ($7 \times 2^{1}/_{8} \times 4^{1}/_{4}$ inches)



FS-20

Foot Swich

•To record or print an image on a still video recorder or a video printer

Connector:	Stereo mini
Cable length:	5 m

UPC-8810

A4-size Colour Printing Pack

- Colour print pack for the UP-D70A

Contents:	100 sheets of print paper A roll of YMC Ink Ribbon
Paper size:	210 × 297 mm (8 ⅜ × 11 ¾ inches)

SONY
Color Printing Pack
Ensemble pour impression couleur
UPC-8810

UPC-8817

A4 Plus size Colour Printing Pack

- Colour print pack for UP-D70A

Contents:	100 sheets of print paper 1 roll of ink ribbon
Paper size:	222 × 322.4 mm (8 ¾ × 12 ¾ inches)

UPC-8820

A4-size B&W Printing Pack

- Monochrome print pack for the UP-D70A

Contents:	100 sheets of print paper A roll of B&W Ink Ribbon
Paper size:	210 × 297 mm (8 ⅜ × 11 ¾ inches)

SONY
B & W Printing Pack
Ensemble pour impression en noir et blanc
UPC-8820

UPC-740 (8840A)

A4-size Self-Laminating Colour Printing Pack

- Self-Laminating print pack for the UP-D70A

Contents:	72 (70) sheets of print paper A roll of YMCL Ink Ribbon
Paper size:	210 × 297 mm (8 ⅜ × 11 ¾ inches)

SONY
UPC-740

UPC-747

A4 Plus size Self-Laminating Colour Printing Pack

- Self-Laminating print pack for the UP-D70A

Contents:	72 sheets of print paper A roll of YMCL Ink Ribbon
Paper size:	222 × 322.4 mm (8 ¾ × 12 ¾ inches)

SONY
UPC-747

UPC-7010

A4-size Colour Printing Pack

- Colour print pack for UP-7300MDP

Contents:	100 sheets of print paper 1 roll of ink ribbon for 100 print
Paper size:	210 × 297 mm (8 ⅜ × 11 ¾ inches)

SONY
A4 SIZE
UPC-7010

UPC-7020

A4-size Black and White Printing Pack

- Monochrome print pack for UP-7300MDP

Contents:	100 sheets of print paper 1 roll of ink ribbon for 100 print
Paper size:	210 × 297 mm (8 ⅜ × 11 ¾ inches)

SONY
A4 SIZE
UPC-7020

UPC-7030

A4-size OHP Printing Pack

- Colour OHP transparency print pack for UP-7300MDP

Contents:	100 transparencies 1 roll of ink ribbon for 100 print
Paper size:	210 × 297 mm (8 ⅜ × 11 ¾ inches)

SONY
A4 SIZE
UPC-7030

UPC-5510*

A5-size Colour Printing Pack

•Colour print pack for the UP-D5500/5600MDP

Contents:	200 sheets of print paper 1 roll of ink ribbon
Paper size:	148 × 210 mm (5 ⅞ × 8 ⅜ inches)

*Ink ribbon holder is not included.

SONY
Color Printing Pack
Ensemble pour impression couleur
UPC-5510

5UPC-5510*

A5-size Colour Printing Pack

•Colour print pack for UP-D5500/5600MDP

Contents:	5 packs of 200 sheets of print paper 5 rolls of ink ribbon
Paper size:	148 × 210 mm (5 ⅞ × 8 ⅜ inches)

*Ink ribbon holder is not included.

UPC-5510C

A5-size Colour Printing Pack

•Colour print pack for UP-D5500/5600MDP

Contents:	200 sheets of print paper 1 ink ribbon with disposable cartridge
Paper size:	148 × 210 mm (5 ⅞ × 8 ⅜ inches)

UPA-5500

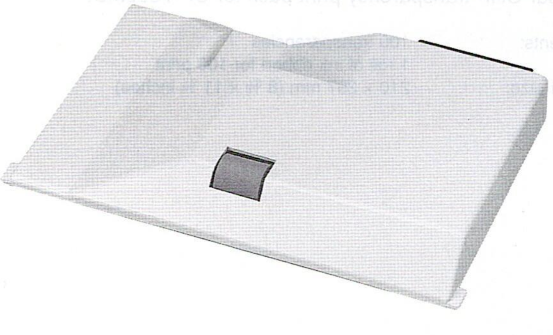
Ink Ribbon Holder

•Ink ribbon holder for UPC-5510 and 5UPC-5510

UPA-2001

Paper Ejector

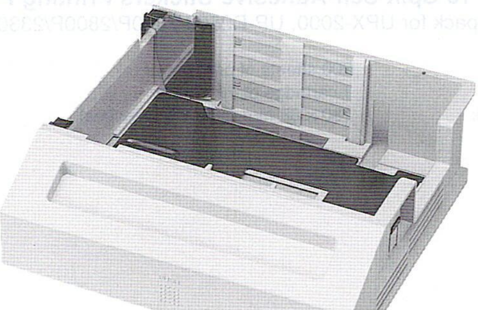
• Paper ejector for UP-D2500/2850P/2800P/2330P/2300P



UPA-2002

Paper Tray

- Paper tray for UPC-2040A and UPC-2070E



UPC-2010

A6-size Colour Printing Pack

•Colour print pack for UPX-2000, UP-D2500/2850P/2800P/2300P/2100P

Contents:	200 sheets of print paper 1 roll of ink ribbon
Paper size:	130 × 88 mm (5 ⅛ × 3 ½ inches)

SONY
UPC-2010
200 prints

UPC-2020

A6-size Black and White Printing Pack

•Monochrome print pack for UPX-2000, UP-D2500/2850P/2800P/2300P

Contents:	200 sheets of print paper 1 roll of ink ribbon
Paper size:	130 × 88 mm (5 ⅛ × 3 ½ inches)

SONY
UPC-2020
200 prints

UPC-20S01

A6-size Self-Adhesive Stickers Printing Pack

•Printing pack for UPX-2000, UP-D2500/2850P/2800P/2330P/2300P

Contents:	200 sheets of print paper 1 cartridge of ink ribbon
Paper size:	130 × 88 mm (5 ⅛ × 3 ½ inches)

SONY
UPC-20S01
200 prints

UPC-20S16

A6-size 16-Split Self-Adhesive Stickers Printing Pack

•Printing pack for UPX-2000, UP-D2500/2850P/2800P/2330P/2300P

Contents:	200 sheets of print paper 1 cartridge of ink ribbon
Paper size:	130 × 88 mm (5 ⅛ × 3 ½ inches)

SONY
200 prints
UPC-20S16
for UP-2000 series
200 prints

UPC-20S04

A6-size 4-Split Self-Adhesive Stickers Printing Pack

•Printing pack for UPX-2000, UP-D2500/2850P/2800P/2330P/2300P

Contents:	200 sheets of print paper 1 cartridge of ink ribbon
Paper size:	130 × 88 mm (5 ⅛ × 3 ½ inches)

SONY
200 prints
UPC-20S04
for UP-2000 series
200 prints

UPC-2040A

A6-size Self-laminating Colour Printing Pack

• Self-laminating colour print pack for UPX-2000, UP-D2500/2330P

Contents:	120 sheets of print paper 1 cartridge of ink ribbon
Paper size:	148 × 100 mm (5 ⅞ × 4 inches)

SONY
120 prints
UPC-2040A
for UP-2000 series
120 prints

UPC-2070E

A6-size Postcard Printing Pack

•Postcard printing sheet for UPX-2000, UP-D2500/2850P/
2800P/2300P

Contents:	150 sheets of print paper 1 cartridge of ink ribbon
Paper size:	148 × 100 mm (5 ⅞ × 4 inches)

SONY
150 prints
UPC-2070E
for UP-2000 series
150 prints

UPT-210BL

Blue Transparent Film

- Type Ⅲ blue transparent film roll for UP-980CE (210 mm × 12.5 m)

SONY
210mm X 12.5m
TYPEⅢ (Transparent)
UPT-210BL
Blue Thermal Transparent Film

UPP-210HD

High Density Printing Paper

- Type II high density thermal paper roll for UP-980CE/960CE (210 mm × 25 m)

SONY
TYPE II (High Density)
210mm × 25m
UPP-210HD
High Density Printing Paper
Sony Corporation Tokyo Japan
Made in Japan

UPP-210SE

High Quality Printing Paper

- Type II normal density thermal paper roll for UP-980CE/960CE (210 mm × 25 m)

SONY
TYPE II (Normal)
210mm × 25m
UPP-210SE
High Quality Printing Paper
Sony Corporation Tokyo Japan
Made in Japan

UPP-110HA

Superior Density Printing Paper

- Type IV superior density thermal paper roll for the UP-890CE (110 mm × 18 m)

SONY
TYPE IV (Enhanced)
UPP-110HA
Superior Density Printing Paper
Sony Corporation Tokyo Japan
Made in Japan

UPP-110HD

High Density Printing Paper

- Type II high density thermal paper for UP-D890/890CE (110 mm × 20 m)

SONY
TYPE II (High Density)
110mm×20m
UPP-110HD
High Density Printing Paper

UPP-110S

High Quality Printing Paper

- Type I normal density thermal paper roll for UP-D890/890CE (110 mm × 20 m)

High Quality
Printing Paper
UPP-110S
SONY

5UPR-6080

Colour Ink Ribbon

- Colour ink ribbon for UP-D6500/D6400/D6300
- Provides YMCK colour print and thermal lamination

SONY
5UPR-6080
COLOR INK RIBBON
RUBAN ENCREUR COULEUR

5UPR-6040

Colour Ink Ribbon

- Colour ink ribbon for the UP-D6500/D6400/D6300
- Provides YMC colour print and thermal lamination

SONY
5UPR-6040 /1
COLOR INK RIBBON
RUBAN ENCREUR COULEUR

UPR-6025

Black and White Ribbon

- Black and White ribbon for UP-D6500/D6400/D6300

SONY
UPR-6025
BLACK INK RIBBON
RUBAN ENCREUR NOIR
SONY CORPORATION
TOKYO JAPAN

UPZ-2000M

Interface cable

- Interface cable between UP-D2500 and Apple Macintosh series computers

Connectors:	Mini DIN 8-pin df Amphenol 36-pin
Cable length:	1.5 m

UPZ-7001

Video Interface Cable

- Interface cable between UP-7300MDP and video equipment which outputs colour high scan signals

Connectors:	DN50-20-pin ↔ BNC (×5)
Cable length:	2 m

UPZ-7002

Video Interface Cable

- Interface cable between UP-7300MDP and video equipment which outputs monochrome high scan signals

Connectors:	DN50-20-pin ↔ BNC
Cable length:	5 cm

UPZ-7003

Hi-line terminator

•For 75Ω termination •Used when UP-7300MDP is used without monitoring display

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UPZ-7000M

Video interface cable

•Interface cable between UP-7300MDP and Apple Macintosh series computers

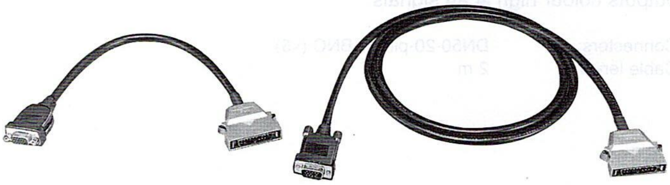
Connectors: DN50-20-pin ↔ D-sub 15-pin
Cable length: 1.5 m, 0.3 m

UPZ-7000I

Video interface cable

•Interface cable between UP-7300MDP and IBM PS/2 computers

Connectors: DN50-20-pin ↔ D-sub 15-pin
Cable length: 1.5 m, 0.3 m



UPZ-930M

Video interface cable

•Interface cable between UP-930 and Apple Macintosh series computers

Connectors: D-sub 15-pin ↔ D-sub 15-pin
Cable length: 2 m

UPZ-930I

Video interface cable

•Interface cable between UP-930 and IBM PS/2 computers

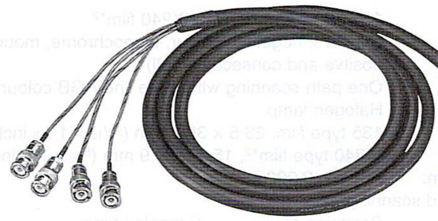
Connectors:	D-sub 15-pin ↔ D-sub 15-pin
Cable length:	2m

SMF-3005

RGB cable

•For connecting UP-930 to a video product equipped with RGB connectors

Connectors:	D-sub 15-pin ↔ BNC (× 4)
Cable length:	2m

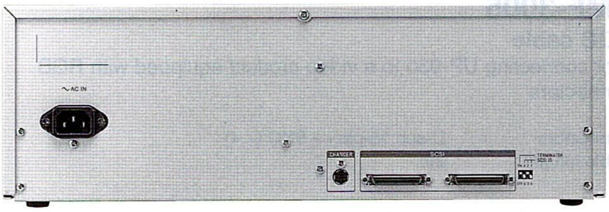


UY-S77

Film scanner

•High speed consecutive scanning in six minutes of 36 frame images[*1] •High quality image at a maximum resolution of 2,200dpi (dots per inch), (2,048 × 3,072pixels) •Automatic colour compensation •Internal JPEG compression •Compatibility with various kinds of film - 135 type (35 mm) film of positive, negative, colour, monochrome, mounted positive and IX240 Advanced Photo System film[*2] •Easy setup without troublesome film handling •Bundled with TWAIN driver software and scanning utility software for Windows® 95/98[*3]/NT4.0 and Macintosh® OS

Supplied accessories:	Halogen lamp (2) Sleeve carrier, Slide carrier AC power cable, Operation manual TWAIN driver and utility software for Windows 95/NT4.0/Macintosh
Optional accessory:	Film carrier[*4] (for 135 type film) UYA-S77FC Film tray (for roll type film) UYA-S77TR
Spare part:	Halogen lamp MPS-L60



Specifications

Supported film:	135 type (35 mm) film, IX240 film[*2] (positive, negative, colour, monochrome, mounted positve and consecutive roll)
Scanning method:	One path scanning with three line RGB colour CCD
Light source:	Halogen lamp
Scanning size:	135 type film, 23.5 × 35.3 mm (15/16 × 1 7/16 inches) IX240 type film[*2], 15.6 × 27.9 mm (5/8 × 1 1/8 inches)
Maximum resolution:	Approx. 2,200dpi

Scanning pixels and scanning time[*5]:

Film type	Scanning pixels	Scanning time (per frame)
135:	512 × 768pixels	Approx.3 seconds
	1,024 × 1,536pixels	Approx.3 seconds
	2,048 × 3,072pixels	Approx.9 seconds
IX240[*2]:	512 × 912pixels	Approx.5 seconds
	1,024 × 1,824pixels	Approx.5 seconds

Prescanning time:	Approx. 40 seconds (135 type film, 36 frame images)	
Colour depth:	Internal processing: 12bits per color Output: 8bits per color	
Interface:	SCSI-2 (Half pitch, pin-type connector)	
Bundled software:	TWAIN driver and scanning utility software for Windows 95/NT4.0/Macintosh	
System requirements:	Platform:	PC/AT compatible
	OS:	Windows 95
	SCSI host adapter:	Adaptec AHA-2940 series
	Display:	SVGA (800 × 600 or larger)
	Recommended CPU:	Pentium® processor
	Recommended RAM:	64MB or larger
Power requirements:	220 to 240V, 50/60Hz	
Power consumption:	Approx. 0.65A max.	
Dimension:	438 (W) × 148 (H) × 560 (D) mm (17 1/4 × 5 7/8 × 22 1/8 inches)	
Mass:	Approx. 12 kg (26 lb 7oz)	

UYA-S77FC

Sleeve Film Carrier

•Sleeve film carrier for 135 type (35 mm) film

Mass: 630 g (1 lb 6 oz)

UYA-S77TR

(attached with UY-S77)

Film Tray

•Film tray for roll type film

Mass:	600 g (1 lb 5 oz)
Dimensions:	215 × 134 × 259 mm (8 ½ × 5 ⅜ × 10 ¼ inches)

---

*1 When scanned with 1,100dpi (1,024 × 1,536pixels) resolution.
*2 Available when using the optional film carrier which will soon be available.
*3 Can be operated using Windows 95 driver software.
*4 The film carrier for IX240 type film will soon be available.
*5 This scanning time does not include data transfer time.

UPA-D3

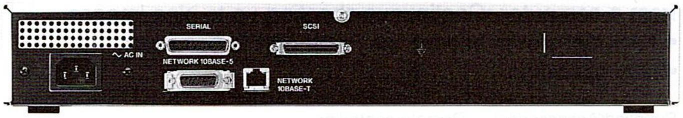
Digital print server

•Incorporates DICOM 3.0 compliant software to provide multi-modality connectivity between DICOM*[1] compliant medical imaging equipment and selected Sony printers •Capability to daisy-chain up to six selected Sony printers •Utilizes industry standard TCP/IP protocols •Includes a sophisticated colour matching system for use with digital images from medical modalities such as Ultrasound, X-Ray, Nuclear, MRI and CT

SONY
DIGITAL IMAGE PROCESSOR UPA-D3
POWER

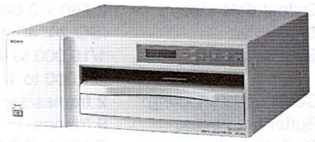
Specifications

•DICOM ver. 3.0 •CPU: R4700
•32MByte RAM •1GByte HDD



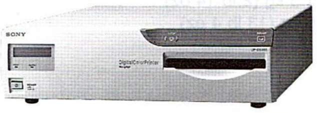
Sony's DICOMpatible printers produce images through a completely dry process.

The UP-D70A Digital Colour Printer is capable of producing extremely high quality color or black and white images in both full-bleed A4 and regular A4 sizes. The printer features a fast print speed and a resolution of 300 dpi.



UP-D70A

The UP-D5500/5600MDP*[2] Digital Colour Printer is remarkable for its ability to produce extremely high resolution prints at 300 dpi, and its very fast print time. High quality A5 size prints can be made.



UP-D5500

UP-D5600MDP

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*1 DICOM (The Digital Imaging and Communication in Medicine) is standardized by ACR (The American College of Radiology) and NEMA (The National Electrical Manufactures Association).

*2 The optional UPK-5502SC Digital Interface Board and UPK-5500 Four-frame Memory Board need to be inserted in the UP-5600MDP.

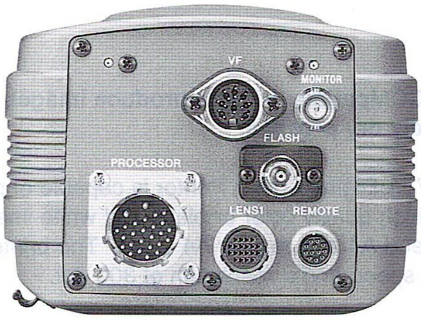
DKC-ST5

Digital Photo Camera

SONY
DIGITAL PHOTO CAMERA
LENS2

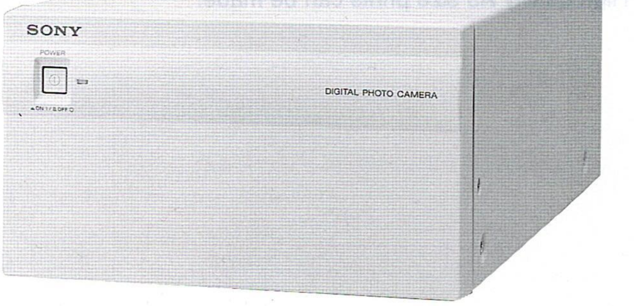
•Digital Photo Camera with the superior image quality
•For professional use in fields such as portraiture, commercial photography and microscopy •2/3-inch 1.4 million pixel CCDs •2560 × 2048 resolution (output)
•Clear picture without blur by three Progressive Scan CCDs
•Live monitoring and instant proofing of images are possible
•Overlay function provides the ability to preview the composition of an imge shot by DKC-ST5 and an image from a computer •Continuous shooting up to nine images
•Quick transfer of images via SCSI port to computer
•Easy operation

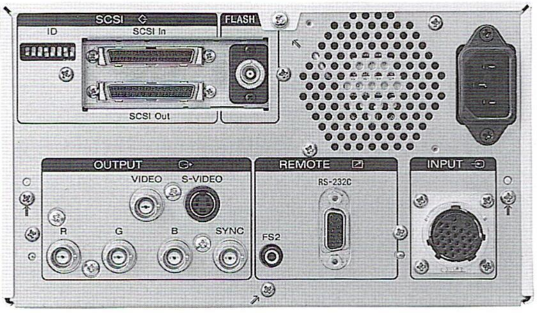
Supplied Accessories: Remote controller
AC power cord
Software (for Windows '95 and Macintosh)
Ferrite core


VF
MONITOR
FLASH
PROCESSOR
LENS1
REMOTE

Specifications

Image device:	2/3-inch progressive scan CCD	
Total pixel number:	Approx. 1,400,000 pixels	
Color separation:	3-CCD prism system with diagonal spatial offset	
Lens mount:	2/3-inch bayonet	
Output data size:	2,560 × 2,048	
Sensitivity:	ISO 20, 40, 80, 160 equivalent (selectable)	
Shutter speed:	1/10,000 to 4 sec. 1/1,000 to 1/15 sec. (with flash sync.)	
Continuous shooting:	2 frames/sec. (up to 9 frames)	
Buffer memories:	9 frames	
Digital interface:	SCSI-2, RS-232C	
Monitor out:	Video, S-Video, R/G/B	
Dimensions	Camera head:	120(W) × 90(H) × 202.2(D) mm ($4\frac{3}{4} \times 3\frac{5}{8} \times 8$ inches)
	Processor unit:	211(W) × 365(H) × 128.5(D) mm ($8\frac{3}{8} \times 14\frac{3}{8} \times 5\frac{1}{8}$ inches)
Mass:	Camera head:	1.3 kg (2 lb 14 oz)
	Processor unit:	6 kg (13 lb 4 oz)

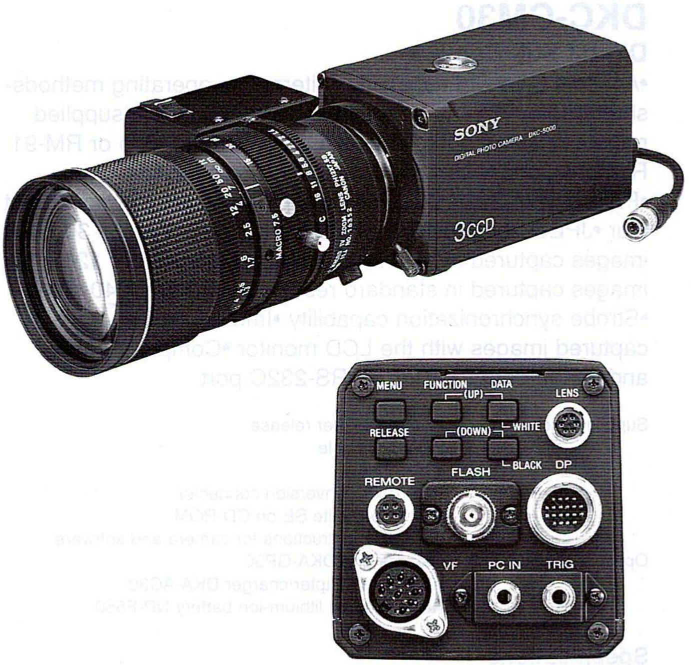

SONY
POWER
DIGITAL PHOTO CAMERA


SCSI
ID
SCSI In
FLASH
SCSI Out
OUTPUT
VIDEO
S-VIDEO
R
G
B
SYNC
REMOTE
RS-232C
FS2
INPUT

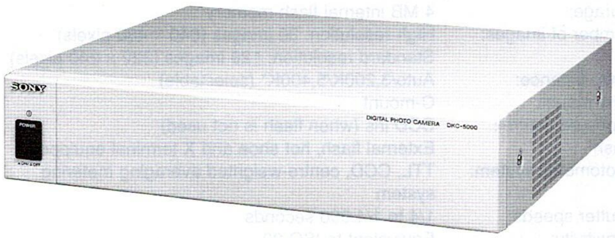
DKC-5000

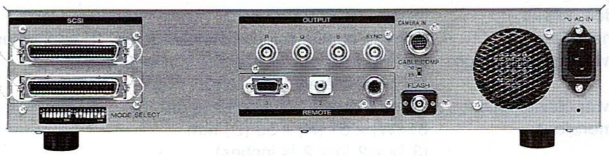
Digital Photo Camera

•High resolution of 800 (h) x 800 (v) TV lines •1/2-inch three-CCD camera (470K pixels each) •Diagonal pixel offset •10-bit analog-to-digital conversion and Look Up Table (LUT) realizing delicate adjustments of color saturation and gamma characteristics •Strobe synchronization •Equipped with two-frame memory •Controllable from a computer via SCSI •1/2-inch 38mm bayonet mount



Supplied Units/Accessories:	
	Camera head
	Digital processor
	Camera cable (10m)
	Release switch (RM-S72)
	Software (Photoshop Plug-in)
	SCSI cable
	AC power cord
Optional Accessories:	DKB-5008 (Frame Memory board)
	VCL-713BXS
	VCT-S20
	DXF-40BCE
	DXF-41





Specifications

Camera Head

Imager:	3-chip 1/2-inch Interline-transfer CCD
Effective picture elements:	440,000 pixels
Total picture elements:	470,000 pixels
Resolution:	800 (horizontal) x 800 (vertical) TV lines
Spatial pixel offset:	Horizontal and vertical
Lens mount:	1/2-inch 38mm bayonet
Signal-to-noise ratio:	More than 56dB (at ISO 100)
Sensitivity:	ISO 100, 200, 400, 800
White balancing :	Automatic (Flash ON/OFF) Manual (Red gain and Blue gain adjustable individually)
Electric shutter:	4 to 1/10,000 sec.
Gamma:	Switchable (on/off/User1/User2/User3)
Contrast:	Adjustable from -127 to 127
Colour temperature pre-setting:	3200K/5600K
Input/output connector:	Processor: 20-pin Lens: 6-pin EVF: DIN 8-pin REMOTE: 4-pin, for RM-S72 FLASH: X-connector PC IN: Stereo mini TRIG: Stereo mini
Operating temperature:	5˚C to 35˚C
Dimension:	70(W) × 72(H) × 123.5(D) mm
Mass:	(Approx.) 620 g

Digital Processor

Analog/Digital conversion:	10-bit
Final image data size:	1520 (h) × 1144 (v) × 3 channels (5.0Mbytes)
Memory:	2 planes
Analog output:	R/G/BSync.: BNC × 4, 0.7 Vp-p, 75 ohms (625 lines/ 50Hz)
Digital interface:	SCSI-2
Input/output connector:	Camera: 20-pin FLASH: X-connector REMOTE1: 12-pin REMOTE2: Mini REMOTE3: D-sub 9-pin SCSI: Amphenol 50-pin x 2
Power requirements:	AC 220V to 240 V (50/60Hz)
Power consumption:	0.7A
Dimension:	423(W) × 105.5(H) × 356.5(D) mm
Mass:	Approx. 9 kg

DKC-CM30

Digital Still Camera

•Accepts C-mount capability •Alternative operating methods-shutter release on the handheld camera with the supplied remote release, optional DKA-GP30 Camera Grip or RM-91 Remote Control Unit •640 × 480 pixels resolution •Progressive Scan CCD for clear pictures without movement blur •JPEG compression •4 MB flash memory holds 30 images captured in high resolution of 640 × 480 or 120 images captured in standard resolution of 320 × 240 pixels •Strobe synchronization capability •Immediate viewing of captured images with the LCD monitor •Computer control and image data transfer via RS-232C port

Supplied accessories:	Remote shutter release RS-232C cable Video Cable RCA/BNC conversion connector MGI PhotoSuite SE on CD-ROM Operating instructions for camera and software
Optional accessories:	Camera grip DKA-GP30 AC power adapter/charger DKA-AC30 Rechargeable lithium-ion battery NP-F550

Specifications

Image device:	1/3-inch progressive scan CCD (Effective pixel number: 320,000 pixels)
Image data size:	640 × 480 pixels
Compression method:	JPEG
Storage:	4 MB internal flash memory
Number of images:	High resolution: 30 images (640 × 480 pixels) Standard resolution: 120 images (320 × 240 pixels)
White balance:	Auto/3,200K/5,400K* (selectable)
Lens mount:	C-mount
Exposure control:	CCD iris (when flash is not used)
Flash:	External flash, hot shoe and X terminal equipped
Photometric system:	TTL, CCD, centre-weighted averaging metering system
Shutter speeds:	1/4 to 1/4,000 seconds
Sensitivity:	Equivalent to ISO 90
LCD monitor:	2-inch TFT colour LCD monitor with 110,000 pixels
Self-timer:	10 seconds
Digital I/F:	RS-232C
Video output:	NTSC
Other I/O:	Remote shutter release connector, DC IN connector
Power supply voltage:	8.4 V (at AC power adapter connector) 7.2 V (at battery terminals)
Power consumption:	3.7 W (when LCD monitor is on)
Dimensions:	81 (W) × 61 (H) × 58 (D) mm (3 ¼ × 2 ¼ × 2 ⅜ inches)
Mass:	430 g (15 oz)

DKR-700P

Digital Still Recorder

•Digital still image recorder for a wide range of applications •Recording medium: MD Data medium/Picture MD •500 TV lines digital recording •JPEG Compression •Selection is possible from five picture modes - Non Compression/Fine/ Normal/Quick1/Quick2 •Flash Synchronization •Image Information such as the title of the image, sent from RM-C700 or an external computer, can be recorded along with the images •Interval recording to be set from 5 sec. to 60 min. •Automatic playback •Multiple inputs/ outputs •List search function with RM-C700 •Image Search funtion •Rapid image retrieval •SCSI port equipped allowing image data to be transferred to a computer •RS-232C port allows sophisticated control from a computer •Foot switch operation is possible with FS-20 and FS-30

SONY
POWER
DIGITAL STILL RECORDER
POWER
BUSY
EJECT
MENU
DISP
IMAGE
LIST
SEARCH
EXEC
PLAY
AUTO PLAY
SOURCE
CAPTURE
REC
AUTO
ERASE
ALL ERASE

Supplied Accessories:	Operational manual Software (Photoshop Plug-in for Windows) AC Power Cord
Optional accessories:	RM-C700 (Remote Control Unit) RM-91 (Remote Control Unit) FS-20 (Foot Control Unit) FS-30 (Foot Control Unit) MMD-140 (Rewritable MD DATA medium)

Specifications

Recording Medium:	Mini Disc for DATA
File Format:	Picture MD
Data Compression Method:	JPEG Base Line; Fixed Data Length algorithm
Data Size/Sub Sampling:	MAIN 768 × 592 (Y:U:V 4:2:2) SD(Quick play back) 640 x 480 (Y:U:V 4:2:0) INDEX (Image search) 80 x 60 (Y:U:V 4:2:0)
Sampling Frequency:	14.75MHz
Digital Interface:	SCSI RGB 4:4:4 pixel sequential
Digital I/O	SCSI-2 Half pitch pin conncetor
Horizontal resolution:	More than 500 TV lines
Video input:	Composite (BNC x 1) Y/C (DIN 4-pin S type) RGB (BNC × 3) Sync (BNC × 1)
Video output:	Composite (BNC × 1) Y/C (DIN 4-pin S type) RGB (BNC × 3) Sync (BNC × 1)
Image information:	Image Number (Auto increment) Title 15 digits ID Number 15 digits year/month/date/hour/min./sec. Comment 250 Bytes
Recording mode:	NON COMPRESSION/FIN/NORMAL/QUICK1/QUICK2
Camera control mode:	CAMERA1 BNC (External Sync) (for Long Time Exposure by DXC-930P/950P) CAMERA 2 BNC (External Sync) (for REC Control by DXC-950P)
External control:	RS-232C (D-sub 9-pin female) for computer control
Power requirement:	AC220/230/240V switchable, 50Hz
Power consumption:	0.30 A max.
Mass:	Approx. 7.0kg
Safety approval:	EN60950, EN50081-1, EN50082-1, FCC Class A (The DKR-700P meets all applicable provisions of the EN60601-1 safety standard.)

*When flash id on, white balance is automatically set to 5400K.

5-3 Digital still camera/recorder accessories

RM-C700

Remote control unit for the DKR-700P

- For convenient operation of the DKR-700P
- File name can be input to the images of the DKR-700P

SONY
RM-C700
PLAY
AUTO PLAY
SOURCE
CAPTURE
REC
ERASE
ALL ERASE INIT
SHIFT
SPC
DEL
EXE

FS-30

Foot Switch

- Multiple function controls over the UP-5600MDP connected through the D-sub 9-pin remote interface.

Supplied accessory:	Operation manual

Specifications

Terminal:	Disub 5-pin
Dimensions:	337.3(W) × 46.1(H) × 128.0(D) mm

MMD-140

Rewritable MD DATA

- Large capacity (140MB)
- Compact size (Diameter 64mm, Width 1.2mm)

SONY
MD DATA
140MB
REWRITABLE MD
MMD-140
WRITE PROTECT

RM-91

Remote control unit

- To record or print an image on a still video recorder or a video printer

Connector:	Stereo mini
Cable length:	5 m

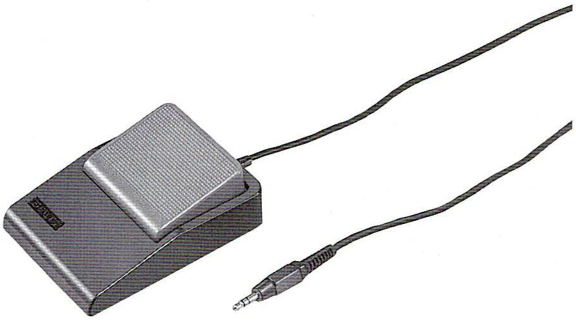
PRINT
RM-91
SONY
SONY

FS-20

Foot swich

- To record or print an image on a still video recorder or a video printer

Connector:	Monaural mini
Cable length:	5m



DKA-GP30

Camera Grip

- DKC-CM30 Camera Grip for stable photographing

Dimensions:	141.3 (W) × 110.4 (H) × 59.9 (D) (mm) (5 ⅝ × 4 ⅜ × 2 ⅜ inches)
Mass:	280 g (10 oz)

DKA-AC30

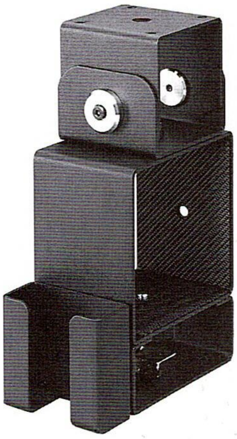
AC Power Adapter/charger

- DKC-CM30 AC adaptor/battery charger for charging Lithium-ion battery such NP-F550/F530

Dimensions:	56 (W) × 44 (H) × 100 (D) (mm) (2 ¼ × 1 ¾ × 4 inches)
Mass:	Approx. 190 g (7 oz)

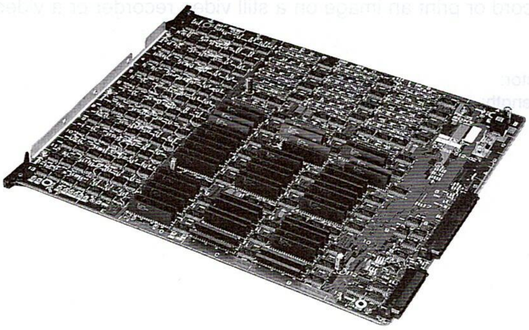
VCT-S20

Tripod Adaptor for the DKC-5000



DKB-5008

Frame Memory Board for the DKC-5000



VCL-713BXS

Zoom Lens for DKC-5000

•x13 Zoom Lens •Standard lens for DKC-5000

Lens mount:	38 mm bayonet mount
Focal length:	7.5 to 97.5 mm
Maximum relative aperture:	F1.4
Minimum focal distance:	1.0 mm
Filter screw:	72 mm
Aperture speed :	0.4 s
Control:	Focus: Manual, Zoom: Manual Iris: Servo/Manual
Mass:	850 g (1.9 lb)

VCL-1205BYS

Zoom Lens for DKC-ST5

Lens mount:	2/3-inch bayonet
Focal length:	12.5 to 63 mm (equivalent to a focal length of 50 to 252 mm in 35 mm film format)
Aperture:	F2 to F16
Mass:	1.2 kg (2 lb 10 oz)

SECTION 7 SURVEILLANCE PRODUCTS

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SSC-CX34P

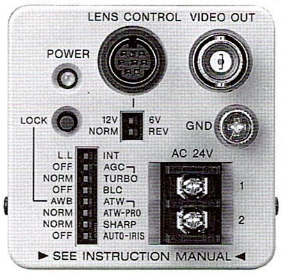
Built-in Zoom Lens Colour Video Camera

•Especially designed for surveillance applications •Built-in x12 switchable motorized/auto iris zoom lens with zoom/focus preset capabilities •The lens zoom, focus and iris function can be remotely controlled from an external controller/receiver (Lens control voltage, ±6 V or ±12 V is selectable) •Digitally-controlled Smart Control function provides intelligent and flexible automatic backlight compensation •High density 1/3-inch IT Hyper HAD CCD offers a high resolution of 470 TV lines and high sensitivity with a minimum illumination of 4.5 lx (F1.8) •Excellent signal-to-noise ratio of 50 dB •Extra gain with Turbo AGC function, providing 6 dB more gain than conventional AGC •Aperture/Sharp Mode makes object outlines sharper in the reproduced picture •Three alternative automatic white balance control modes: AWB (Auto White Balance) by one push/ATW (Auto Tracing White Balance)/ATWpro •New ATWpro mode ensures reliable white balance control based on the absolute colour temperature of the object (The effective operational colour range is 2500 K to 6000 K)

Supplied Accessories:	Tripod adaptor (1) Lens control cable (1) Operation manual (1)

SONY
COLOR VIDEO CAMERA Digital
ZOOM
T
W
FOCUS
F
N
V PHASE
VIDEO LEVEL
+
L
H
12x OPTICAL ZOOM
SONY VIDEO LENS/OPTICAL 12x

SONY VIDEO LENS/OPTICAL 12x
f=5.4~64.8mm 1:1.8 φ37

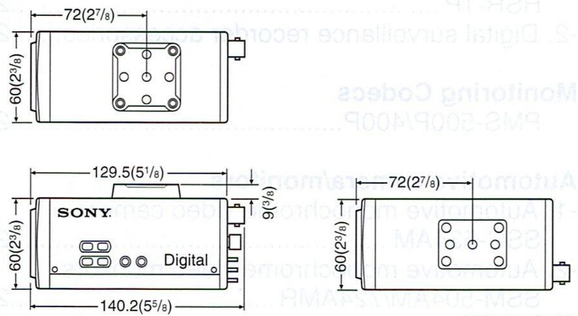


LENS CONTROL
VIDEO OUT
POWER
LOCK
12V NORM
6V REV
GND
L.L
OFF
NORM
OFF
AWB
NORM
NORM
OFF
INT
AGC
TURBO
BLC
ATW
ATW-PRO
SHARP
AUTO-IRIS
AC 24V
1
2
► SEE INSTRUCTION MANUAL ◄

Specifications

Image device:	1/3-inch Interline Transfer Hyper HAD CCD
Picture elements:	752 (H) × 582 (V)
Sensing area:	4.4 × 3.3 mm
Scanning system:	625 lines, 2:1 interlace
Sync system:	Internal or external with AC line lock
Phase control:	V phase adjustment (±90˚)
Horizontal resolution:	470 TV lines
Lens mount:	Built-in ×12 zoom lens
Minimum illumination:	AGC ON (TURBO mode) 2.4 lx at F1.8 (30 IRE)* 4.5 lx at F1.8 (50 IRE) 15 lx at F1.8 (100 IRE) *Equivalent with 1.1 lx at F1.2 fixed lens (30 IRE)
Aperture control:	SHARP/NORMAL switchable
Enhancer:	3H
Automatic gain control (AGC):	TURBO/NORMAL/OFF switchable
Electronic shutter:	Not applicable
White balance:	ATWpro/ATW/AWB (one-push) switchable
Backlight compensation:	Smart control (BLC ON/OFF switchable)
Signal-to-noise ratio:	50 dB (Weight ON, AGC OFF)
Video out:	BNC, 1.0 Vp-p, 75 Ω, sync negative
Operating temperature:	–10˚C to 50˚C (14˚F to 122˚F)
Storage temperature:	–40˚C to 60˚C (–40˚F to 140˚F)
Power requirements:	AC 24 V, 50 Hz
Power consumption:	4.8 W
Mass:	520 g (1 lb 2 oz)
Connectors:	AC 24 V terminals, LENS CONTROL (Mini DIN 8-pin), VIDEO OUT (BNC), GND

Dimensions



72(2⁷/₈)
60(2³/₈)
129.5(5¹/₈)
9(³/₈)
SONY
Digital
60(2³/₈)
140.2(5⁵/₈)
72(2⁷/₈)
60(2³/₈)

Unit: mm (inch)

SSC-DC50AP/54AP/58AP

CCD Colour Video Camera

•Especially designed for surveillance applications •High density 1/2-inch IT Exwave HAD™ CCD offers excellent sensitivity with a minimum illumination of 0.8 lx (F1.2), very low smear, and high resolution of 470 TV lines •Digitally-controlled Smart Control function provides intelligent and flexible automatic backlight compensation •For faster backlight compensation, the detection area can be preset •Excellent signal-to-noise ratio of 50 dB •Y/C output capability •Extra gain with Turbo AGC function, providing 6 dB more gain than conventional AGC •Aperture/Sharp Mode makes object outlines sharper in the reproduced picture •Four alternative white balance control modes : AWB (Auto White Balance) by one push/ATW (Auto Tracing White Balance)/ATWpro/5600K •New ATWpro mode ensures reliable white balance control based on the absolute colour temperature of the object (The effective operational colour range is 2500 K to 6000 K) •Variable speed electronic shutter •Accepts 2 types of auto iris lenses (DC servo type/Video servo type) •Accepts C/CS-mount lenses

Exclusive features for SSC-DC50AP

•External synchronization with VBS or VS •Single cable operation (video/sync/power triple multiplex transmission) for easy installation with the optional YS-W150P/W250P Camera Adaptor (Mode A) •Monitor out function for on-the-spot camera positioning (Mode A) •12 V DC power supply can also be used (Mode B)

Exclusive features for SSC-DC54AP/58AP

•External synchronization with VBS, VS or AC line lock
•AC power operation : AC 24 V (DC54AP), AC 220-240 V (DC58AP)

Supplied Accessories:	Lens connector (1) Lens mount cap (1) Operation manual (1)	
Optional accessories:	Camera adaptor	YS-W150P, YS-W250P (for SSC-DC50AP only)
	Aspherical auto iris lens	VCL-3ADXEA (3.8 mm, F0.8)
	Auto iris lens	VCL-S03XEA (3.6 mm, F1.6) VCL-S06XEA (6.0 mm, F1.2) VCL-S12XEA (12 mm, F1.2)
	Manual iris lens	VCL-S03XM (3.6 mm, F1.6) VCL-S06XM (6.0 mm, F1.2)

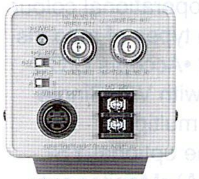
Specifications

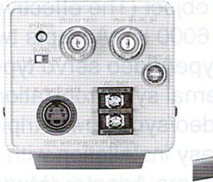
Image device:	1/2-inch Interline Transfer Exwave HAD CCD
Picture elements:	752(H) x 582(V)
Sensing area:	6.3 × 4.7 mm
Scanning system:	625 lines, 2:1 interlace
Sync system:	DC50AP : Internal or external with VBS/VS or MPX-VS DC54AP/DC58AP : Internal or external with VBS/VS or AC line lock
Phase control:	H/SC phase adjustment (H phase:±0.12H, SC phase:360° with 0/180° switch) V phase adjustment (±90°) for AC line lock (SSC-DC54AP/DC58AP only)
Horizontal resolution:	470 TV lines
Lens mount:	C/CS-mount adjustable
Minimum illumination:	AGC ON (TURBO mode) 0.4 lx at F1.2 (30 IRE) 0.8 lx at F1.2 (50 IRE) 3.0 lx at F1.2 (100 IRE)
Aperture control:	SHARP/NORMAL switchable
Automatic gain control (AGC):	TURBO/NORMAL/OFF switchable
Electronic shutter:	1/50, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds)
CCD IRIS control:	ON/OFF switchable, 1/50 to 1/100000 (seconds)
White balance:	ATWpro/ATW/AWB (one-push)/5600K switchable
Backlight compensation:	Smart Control (BLC ON/OFF switchable, eight AE spot is selectable)
Signal-to-noise ratio:	50 dB (Weight ON, AGC OFF)

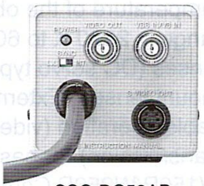
SSC-DC50AP

SSC-DC54AP

Lenses are optional SSC-DC58AP


SSC-DC50AP

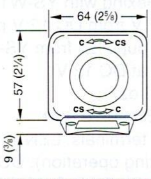

SSC-DC54AP


SSC-DC58AP

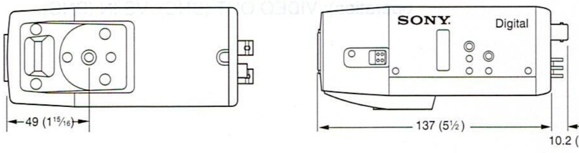
Video out:	BNC: 1.0 Vp-p, 75 Ω, sync negative Y/C: Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, at burst level, 75 Ω
Operating temperature:	-10°C to 50°C (14°F to 122°F)
Storage temperature:	-40°C to 60°C (-40°F to 140°F)
Power requirements:	DC50AP: 1) Multiplexing with YS-W150P/W250P 2) DC 12 V from DC 12 V power supply DC54AP: AC 24 V, 50 Hz DC58AP: AC 220-240 V, 50 Hz
Power consumption:	DC50AP: 1) 5.5 W supplied from YS-W150P/W250P 2) 4.5 W at DC 12 V DC54AP: 6.0 W DC58AP: 5.5 W
Mass:	DC50AP/DC54AP: 600 g (1 lb 5 oz) DC58AP: 900 g (2 lb)
Auto iris type:	DC/VIDEO servo type
Connectors:	DC50AP: DC 12 V terminals, LENS (4-pin), Mode A (Triple multiplexing operation): DC IN/VS IN/VIDEO OUT (BNC), MONITOR OUT (BNC), S-VIDEO OUT (Mini DIN 4-pin) Mode B (DC 12 V operation):VIDEO OUT (BNC), VBS/VS IN (BNC), S-VIDEO OUT (Mini DIN 4-pin) DC54AP: AC 24 V terminals, LENS (4-pin), VBS/VS IN (BNC),VIDEO OUT (BNC), S-VIDEO OUT (Mini DIN 4-pin), GND DC58AP: LENS (4-pin), VBS/VS IN (BNC),VIDEO OUT (BNC), S-VIDEO OUT (Mini DIN 4-pin)

Dimensions

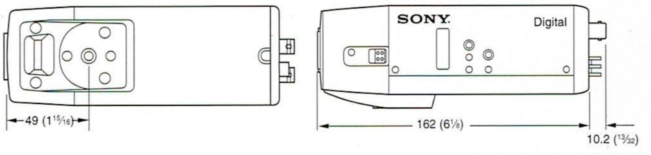
SSC-DC50AP/DC54AP/DC58AP



SSC-DC50AP/DC54AP



SSC-DC58AP



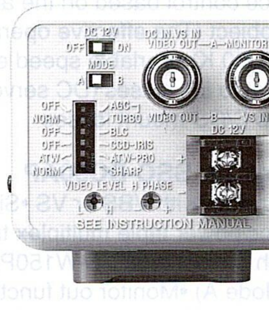
SSC-DC10P

CCD Colour Video Camera

•Especially designed for surveillance applications •Digitally-controlled Smart Control function provides intelligent and flexible automatic backlight compensation •High density 1/3-inch IT Hyper HAD CCD offers a high resolution of 470 TV lines and high sensitivity with a minimum illumination of 1.7 lx (F1.2) •Excellent signal-to-noise ratio of 50 dB •Extra gain with Turbo AGC function, providing 6 dB more gain than conventional AGC •Aperture/Sharp Mode makes object outlines sharper in the reproduced picture •Two alternative white balance control modes : ATW(Auto Tracing White Balance) / ATWpro •New ATWpro mode ensures reliable white balance control based on the absolute colour temperature of the object (The effective operational colour range is 2500 K to 6000 K) •Accepts two types of auto iris lenses (DC servo type/Video servo type) •Accepts C/CS-mount lenses •External synchronization with VS •Single cable operation (video/sync/power triple multiplex transmission) for easy installation with the optional YS-W150P/W250P Camera Adaptor (Mode A) •Monitor out function for on-the-spot camera positioning (Mode A) •12 V DC power supply can also be used (Mode B)

SONY
Hyper HAD
COLOR VIDEO CAMERA
Digital
LENS
AUTO-IRIS
DC

Lens is optional

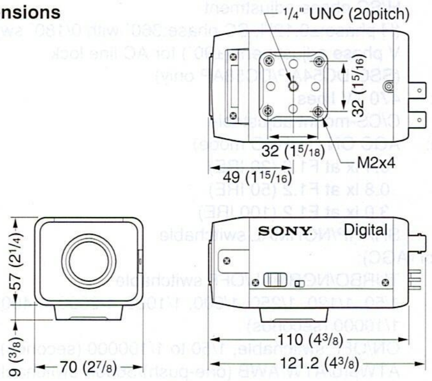

DC 12V
OFF
ON
MODE
A
B
DC IN/VS IN
VIDEO OUT—A—MONITOR OUT
OFF
NORM
OFF
OFF
ATW
NORM
AGC
TURBO
BLC
CCD-IRIS
ATW-PRO
SHARP
VIDEO OUT—B—VS IN
DC 12V
+
−
VIDEO LEVEL
H PHASE
L
H
−
+
SEE INSTRUCTION MANUAL

Supplied Accessories:	Lens connector (1) Lens mount cap (1) Operation manual (1)
Optional accessories:	Auto iris lens VCL-4V8WEA (3.5 mm to 8.0 mm, F1.8) VCL-S02WEAP (2.8 mm, F1.8)

Specifications

Image device:	1/3-inch Interline Transfer Hyper HAD CCD
Picture elements:	752 (H) × 582 (V)
Sensing area:	4.4 × 3.3 mm
Scanning system:	625 lines, 2:1 interlace
Sync system:	Internal or external with VS/VBS* or MPX-VS * The burst signal is not locked.
Phase control:	H phase adjustment (±0.25H)
Horizontal resolution:	470 TV lines
Lens mount:	C/CS-mount adjustable
Minimum illumination:	AGC ON (TURBO mode) 1.1 lx at F1.2 (30 IRE) 1.7 lx at F1.2 (50 IRE) 10 lx at F1.2 (100 IRE)
Aperture control:	SHARP/NORMAL switchable
Enhancer:	3H
Automatic gain control (AGC):	TURBO/NORMAL/OFF switchable
CCD IRIS control:	ON/OFF switchable, 1/50 to 1/100000 (seconds)
White balance:	ATWpro/ATW switchable
Backlight compensation:	Smart Control (BLC ON/OFF switchable)
Signal-to-noise ratio:	50 dB (Weight ON, AGC OFF)
Video out:	BNC: 1.0 Vp-p, 75 Ω, sync negative
Operating temperature:	–10˚C to 50˚C (14˚F to 122˚F)
Storage temperature:	–40˚C to 60˚C (–40˚F to 140˚F)
Power requirements:	1) Multiplexing with YS-W150P/W250P 2) DC 12 V from DC 12 V power supply
Power consumption:	1) 4.0 W supplied from YS-W150P/W250P 2) 3.0 W at DC 12 V
Mass:	430 g (15 oz)
Auto iris type:	DC/VIDEO servo type
Connectors:	DC 12 V terminals, LENS (4-pin), Mode A (Triple multiplexing operation): DC IN/VS IN/VIDEO OUT (BNC), MONITOR OUT (BNC) Mode B (DC 12 V operation): VIDEO OUT (BNC), VS IN (BNC)

Dimensions


1/4" UNC (20pitch)
32 (1 5/16)
32 (1 5/18)
M2x4
49 (1 15/16)
57 (2 1/4)
9 (3/8)
70 (2 7/8)
SONY
Digital
110 (4 3/8)
121.2 (4 3/8)

Unit: mm (inch)

SSC-DC14P/DC18P

CCD colour video camera

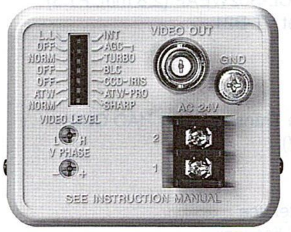
•Especially designed for surveillance applications •High density 1/3-inch IT Hyper HAD CCD offers high horizontal resolution of 470 TV lines and high sensitivity with a minimum illumination of 1.9 lx (F1.2) •Excellent signal-to-noise ratio of 50 dB •Digital control Smart Control function executes the intelligent and flexible automatic backlight compensation •Turbo AGC raises sensitivity by automatically controlling video gain in a range that is 6 dB wider than the normal AGC range •Aperture/Sharp Mode makes object outlines sharper in the reproduced picture •CCD IRIS function allows use of inexpensive manual iris lenses •Two alternative automatic white balance control modes: ATW (Auto Tracing White Balance)/ATW pro •Accepts 2 types of auto iris lenses (DC servo type/Video servo type) •Accepts both CS and C-mount lenses •External synchronization with AC line lock •Selection of power source: AC 24 V for SSC-DC14P, AC 220 to 240 V for SSC-DC18P

SONY
Digital
Hyper HAD
COLOR VIDEO CAMERA
SSC-DC14P

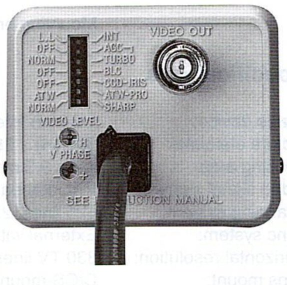
SONY
Digital
Hyper HAD
COLOR VIDEO CAMERA
SSC-DC18P

Lenses are optional

SSC-DC14P


L.L
OFF
NORM
OFF
OFF
ATW
NORM
INT
AGC
TURBO
BLC
CCD-IRIS
ATW-PRO
SHARP
VIDEO OUT
GND
AC 24V
VIDEO LEVEL
L H
V PHASE
– +
2
1
SEE INSTRUCTION MANUAL

SSC-DC18P

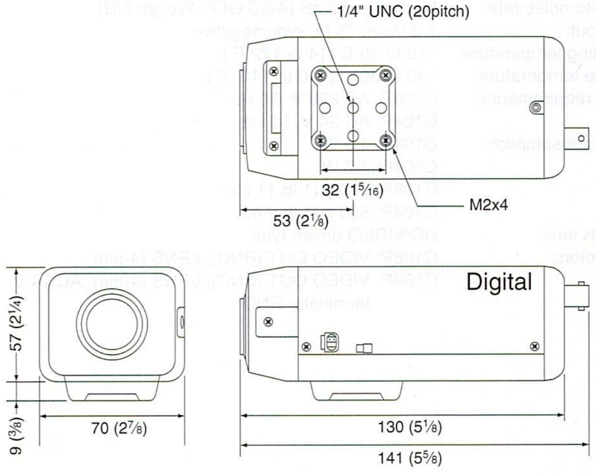

L.L
OFF
NORM
OFF
OFF
ATW
NORM
INT
AGC
TURBO
BLC
CCD-IRIS
ATW-PRO
SHARP
VIDEO OUT
VIDEO LEVEL
L H
V PHASE
– +
SEE INSTRUCTION MANUAL

Supplied accessories:	Lens connector Lens mount cap Operating instruction manual	
Optional accessories:	Auto iris lens	VCL-4V8WEA (3.5 to 8.0 mm, F1.8) VCL-S02WEAP (2.8 mm, F1.3)

Specifications

Image device:	1/3-inch Interline Transfer Hyper HAD CCD
Picture elements:	752 (H) × 582 (V)
Sensing area:	4.4 mm × 3.3 mm
Video signal system:	PAL standard
Scanning system:	625 lines, 2:1 interlace
Sync system:	Internal or external with AC line lock (SSC-DC14P: AC 24 V, SSC-DC18P: AC 220 to 240 V)
Horizontal resolution:	470 TV lines
Lens mount:	C/CS-mount (Back focus adjustable)
Minimum illumination:	AGC ON (TURBO mode) 1.2 lx at F1.2 (30 IRE) 1.9 lx at F1.2 (50 IRE) 13 lx at F1.2 (100 IRE)
Aperture:	SHARP/NORMAL switchable
Enhancer:	3H
Automatic Gain Control:	TURBO/NORMAL/OFF switchable
Phase control:	V-phase control (±90˚)
CCD IRIS control:	ON/OFF switchable
White balance:	ATW pro/ATW switchable
Backlight compensation:	Smart Control
Signal-to-noise ratio:	50 dB (Weight ON, AGC OFF)
Video out:	1.0 Vp-p, 75 Ω, sync negative
Operating temperature:	–10 to 50˚C (14 to 122˚F)
Storage temperature:	–40 to 60˚C (–40 to 140˚F)
Power requirements:	SSC-DC14P: AC 24 V SSC-DC18P: AC 220 to 240 V
Power consumption:	SSC-DC14P: 4.5 W SSC-DC18P: 5.5 W
Mass:	SSC-DC14P: Approx. 550 g (1 lb 3 oz) SSC-DC18P: Approx. 770 g (1 lb 11 oz)
Auto iris lens:	DC/VIDEO driven type
Connectors:	SSC-DC14P: AC 24 V terminals, LENS (4-pin) VIDEO OUT (BNC), GND SSC-DC18P: LENS (4-pin),VIDEO OUT (BNC)

Dimensions


1/4" UNC (20pitch)
32 (1⁵⁄₁₆)
M2x4
53 (2⅛)
Digital
57 (2¼)
9 (⅜)
70 (2⅞)
130 (5⅛)
141 (5⅝)

Unit: mm (inch)

SSC-C108P/C104P

CCD colour video cameras

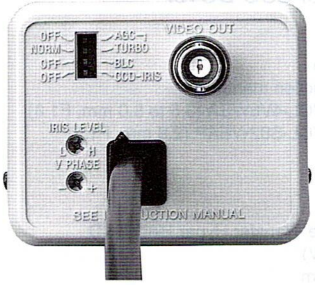
•Especially designed for surveillance applications •1/3-inch IT Hyper HAD CCD offers extremely high sensitivity with a minimum illumination of 0.9 lx (F1.2) •Excellent signal-to-noise ratio of 52 dB •Automatic backlight compensation •Turbo AGC improves sensitivity by boosting its video gain over the AGC range •CCD IRIS function allows use of inexpensive manual iris lenses •ATW (Auto Tracing White Balance) for white balance adjustment •Accepts 2 types of auto iris lenses (DC servo type/Video servo type) •Accepts both CS and C-mount lenses •External synchronization with AC line lock •AC 220 to 240 V power operation (SSC-C108P) •AC 24 V power operation (SSC-C104P)

SONY
Hyper HAD
COLOR VIDEO CAMERA
LENS
AUTO-IRIS
VIDEO
DC
LOCK
TELEVISION LENS

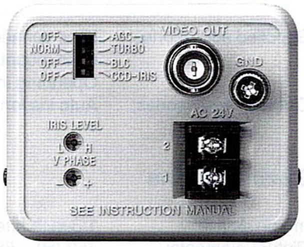
Lens is optional

Supplied accessories:	Lens connector Lens mount cap Operating instruction manual
Optional accessories:	Auto iris lens VCL-4V8WEA (3.5 to 8.0 mm, F1.8) VCL-S02WEAP (2.8 mm, F1.3) Mounting bracket YT-B21

SSC-C108P


OFF
NORM
OFF
OFF
AGC
TURBO
BLC
CCD-IRIS
VIDEO OUT
IRIS LEVEL
L
H
V PHASE
–
+
SEE INSTRUCTION MANUAL

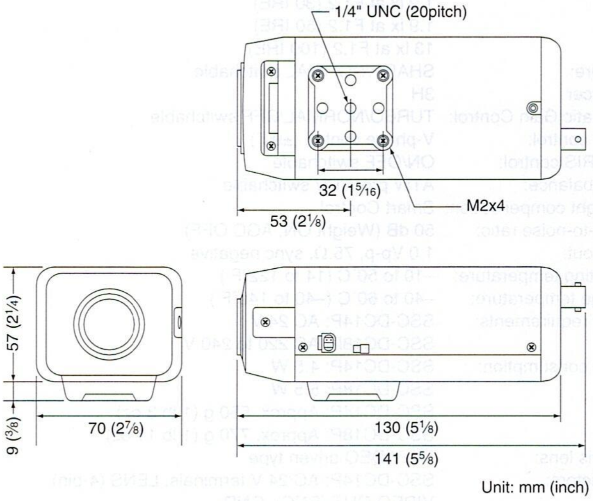
SSC-C104P


OFF
NORM
OFF
OFF
AGC
TURBO
BLC
CCD-IRIS
VIDEO OUT
GND
AC 24V
IRIS LEVEL
L
H
V PHASE
–
+
2
1
SEE INSTRUCTION MANUAL

Specifications

Image device:	1/3-inch Interline Transfer Hyper HAD CCD
Picture elements:	500 (H) × 582 (V)
Sensing area:	4.4 × 3.3 mm
Video signal system:	PAL standard
Scanning system:	625 lines, 2:1 interlace
Sync system:	External with AC line lock
Horizontal resolution:	330 TV lines
Lens mount:	C/CS-mount adjustable
Minimum illumination:	AGC ON (TURBO mode) 0.9 lx at F1.2 (40 IRE) 1.2 lx at F1.2 (50 IRE)
Enhancer:	3H
Automatic Gain Control:	TURBO/NORMAL/OFF switchable
Phase control:	V-phase control (±90˚)
CCD IRIS:	1/50 to 1/100000 (seconds)
CCD IRIS control:	ON/OFF switchable
White balance:	ATW
Backlight compensation:	BLC ON/OFF switchable
Signal-to-noise ratio:	More than 52 dB (AGC OFF, Weight ON)
Video out:	1.0 Vp-p, 75 Ω, sync negative
Operating temperature:	–10 to 50˚C (14 to 122˚F)
Storage temperature:	–40 to 60˚C (–40 to 140˚ F)
Power requirements:	C108P: AC 230 V, 50 Hz C104P: AC 24 V, 50 Hz
Power consumption:	C108P: 4.0 W C104P: 3.5 W
Mass:	C108P: 760 g (1 lb 11 oz) C104P: 550 g (1 lb 2 oz)
Auto iris lens:	DC/VIDEO driven type
Connectors:	C108P: VIDEO OUT (BNC), LENS (4-pin) C104P: VIDEO OUT (BNC), LENS (4-pin), AC 24 V terminals, GND

Dimensions


1/4" UNC (20pitch)
32 (1⁵⁄₁₆)
M2x4
53 (2⅛)
57 (2¼)
9 (⅜)
70 (2⅞)
130 (5⅛)
141 (5⅝)
Unit: mm (inch)

SSC-C370P

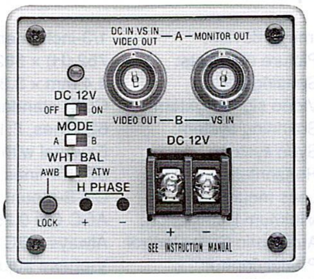
CCD colour video camera

•Especially designed for surveillance applications •High density 1/2-inch IT Hyper HAD CCD offers extremely high resolution of 470 TV lines and high sensitivity with a minimum illumination of 2.5 lx (F1.2) •Excellent signal-to-noise ratio of 48 dB •CCD IRIS function allows use of inexpensive manual iris lenses •Two alternative automatic white balance control modes: AWB (Auto White Balance)/ATW (Auto Tracing White Balance) •Variable speed electronic shutter •Accepts C-mount lenses •External synchronization with VS or VBS* •Single cable operation (video/sync/power triple multiplexing transmission) for easy installation with the optional YS-W150P/W250P Camera Adaptor (Mode A) •Monitor out function for on-the-spot camera positioning (Mode A) •12 V DC power supply can also be used (Mode B)

SONY
Hi Resolution
BACK FOCUS
LENS
CCD-IRIS
COLOR VIDEO CAMERA SSC-C370P

Lens is optional

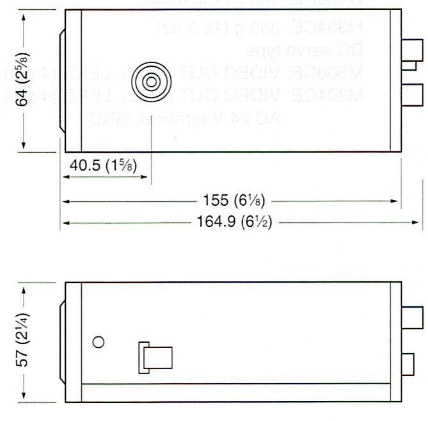
Supplied accessories:	Lens connector Lens mount cap Operating instruction manual	
Optional accessories:	Camera adaptor	YS-W150P, YS-W250P
	Manual iris lens	VCL-S03XM (3.6 mm, F1.6) VCL-S06XM (6.0 mm, F1.2) VCL-S12XM (12 mm, F1.2)
	Auto iris lens	VCL-S03XEA (3.6 mm, F1.6) VCL-S06XEA (6.0 mm, F1.2) VCL-S12XEA (12 mm, F1.2)



Specifications

Image device:	1/2-inch Interline Transfer Hyper HAD CCD
Picture elements:	752(H) × 582(V)
Sensing area:	6.3 mm × 4.7 mm
Video signal system:	PAL standard
Scanning system:	625 lines, 2:1 interlace
Sync system:	Internal or external with VS (VBS)*
Horizontal resolution:	470 TV lines
Lens mount:	C-mount (Back focus adjustable)
Minimum illumination:	AGC ON 2.5 lx at F1.2
Enhancer:	3H
Automatic Gain Control:	ON/OFF switchable
Electronic shutter:	1/50, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds)
Phase control:	H-phase control
CCD IRIS control:	ON/OFF switchable
White balance:	ATW/AWB switchable
Signal-to-noise ratio:	48 dB (AGC OFF)
Video out:	1.0 Vp-p, 75 Ω, sync negative
Operating temperature:	–10 to 50°C (14 to 122°F)
Storage temperature:	–40 to 60°C (–40 to 140°F)
Power requirements:	DC 24 V from YS-W150P/W250P or DC 12 V from DC 12 V power supply
Power consumption:	4.0 W supplied from YS-W150P/W250P or 2.8 W at DC 12 V
Maximum cable length:	300 m using RG-59B/U (3C-2V) 500 m using RG-6A/U (5C-2V) 600 m using RG-11A/U (7C-2V)
Mass:	Approx. 660 g (1 lb 7 oz)
Connectors:	DC 12 V terminals, LENS (4-pin) Mode A (Triple multiplexing operation): DC IN/VS IN/VIDEO OUT (BNC), MONITOR OUT (BNC) Mode B (DC 12 V operation): VIDEO OUT (BNC), VS IN (BNC)

Dimensions



Unit: mm (inch)

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*The SSC-C370P accepts VBS signals for external synchronization, however, the burst signal is not locked.

SPT-M308CE/M304CE

CCD monochrome video cameras

•Especially designed for surveillance applications •1/3-inch IT Hyper HAD CCD offers extremely high sensitivity with a minimum illumination of 0.25 lx (F1.2) •Outstanding horizontal resolution of 570 TV lines •CCD IRIS function allows use of inexpensive manual iris lenses •Backlight compensation is possible with the LEVEL and BLC volume controls (only when using auto iris lenses or the CCD IRIS function) •DC servo circuit drives auto iris facility •Accepts C or CS-mount lenses •AC Line Lock for external synchronization •AC 220 to 240 V (SPT-M308CE)/AC 24 V (SPT-M304CE) power operation

SONY
CCD IRIS
LEVEL
BLC
V-PHASE
ON OFF
L H
Av Pk
C
CS
Hi Resolution
B&W VIDEO CAMERA
CS
1:1.4
CLOSE

SPT-M308CE

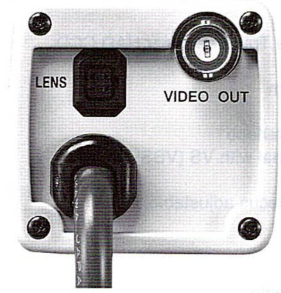
SONY
CCD IRIS
LEVEL
BLC
V-PHASE
ON OFF
L H
Av Pk
C
CS
Hi Resolution
B&W VIDEO CAMERA
MADE IN JAPAN

SPT-M304CE

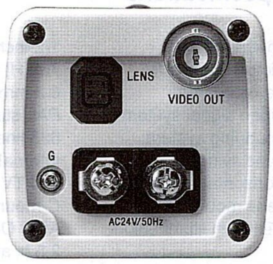
Lenses are optional

Supplied accessories:	Lens connector Lens mount cap Operating instruction manual
Optional accessories:	Auto iris lens VCL-4V8WEA (3.5 to 8.0 mm, F1.8) VCL-S02WEAP (2.8 mm, F1.3)

SPT-M308CE


LENS
VIDEO OUT

SPT-M304CE

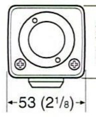

LENS
VIDEO OUT
G
AC24V/50Hz

Specifications

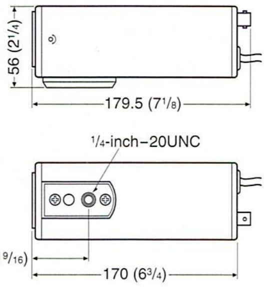
Image device:	1/3-inch Interline Transfer Hyper HAD CCD
Picture elements:	752 (H) × 582 (V)
Sensing area:	4.4 mm × 3.3 mm
Video signal system:	CCIR standard
Scanning system:	625 lines, 2:1 interlace
Sync system:	External with AC line lock
Horizontal resolution:	570 TV lines
Lens mount:	C/CS-mount (Back focus adjustable)
Minimum illumination:	AGC ON 0.25 lx at F1.2 (50 IRE) (350 mV)
Automatic Gain Control:	Always AGC ON
Phase control:	V-phase adjustment (±90°)
CCD IRIS:	1/50 to 1/50000 (seconds)
CCD IRIS control:	ON/OFF switchable
Backlight compensation:	Volume control
Signal-to-noise ratio:	45 dB (AGC OFF)
Video out:	BNC, 1.0 Vp-p, 75 Ω, sync negative
Operating temperature:	–10 to 50°C (14 to 122°F)
Storage temperature:	–40 to 60°C (–40 to 140°F)
Power requirements:	M308CE: AC 220 to 240 V, 50 Hz M304CE: AC 24 V, 50 Hz
Power consumption:	M308CE: 6.0 W M304CE: 4.5 W
Mass:	M308CE: 700 g (1 lb 8 oz) M304CE: 350 g (12.3 oz)
Auto iris lens:	DC servo type
Connectors:	M308CE: VIDEO OUT (BNC), LENS (4-pin) M304CE: VIDEO OUT (BNC), LENS (4-pin), AC 24 V terminal, GND

Dimensions

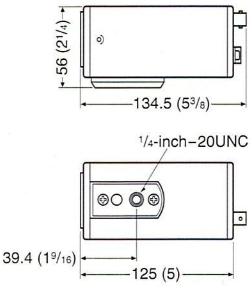
SPT-M308CE/
M304CE



SPT-M308CE


56 (2¼)
179.5 (7⅛)
¼-inch–20UNC
39.4 (1 9/16)
170 (6¾)

SPT-M304CE

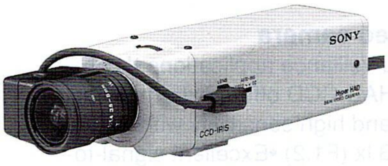

56 (2¼)
134.5 (5⅜)
¼-inch–20UNC
39.4 (1 9/16)
125 (5)

Unit: mm (inch)

SPT-M128CE/M124CE/M122CE

CCD monochrome video camera

•Especially designed for surveillance applications •1/3-inch IT Hyper HAD CCD •High horizontal resolution of 380 TV lines •High sensitivity with a minimum illumination of 0.1 lx at F1.2 (50 IRE) •Excellent signal-to-noise ratio of 45 dB •CCD IRIS allows the use of inexpensive manual iris lens •Backlight compensation is possible with the Level and BLC (Back Light Control) volume controls (when using auto iris lenses or the CCD IRIS function) •AGC (Automatic Gain Control) •Accepts both DC servo and VIDEO servo auto iris lenses •Accepts both CS and C-mount lenses •Alternative power source operation: DC 12 V for the SPT-M122CE, AC 24 V for the SPT-M124CE, AC 220 to 240 V for the SPT-M128CE •4-pin auto iris connector •External synchronization with AC line lock (SPT-M128CE/M124CE)

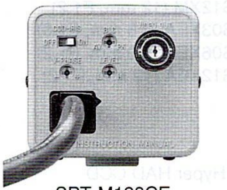

SPT-M128CE

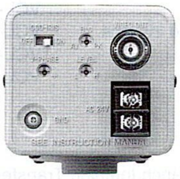
SPT-M124CE

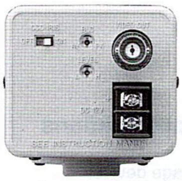
Lenses are optional

SPT-M122CE

Supplied accessories:	Lens connector Lens mount cap Operating instruction manual
Optional accessories:	Auto iris lens VCL-4V8WEA (3.5 to 8.0 mm, F1.4) VCL-S02WEAP (2.8 mm, F0.8) VCL-3ADXEA (3.8 mm, F0.8)


SPT-M128CE


SPT-M124CE

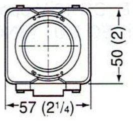

SPT-M122CE

Specifications

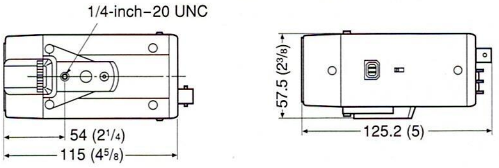
Image device:	1/3-inch Interline Transfer Hyper HAD CCD
Picture elements:	500(H) × 582(V)
Sensing area:	4.4 × 3.3 mm
Video signal system:	CCIR standard
Scanning system:	625 lines, 2:1 interlace
Sync system:	SPT-M128CE/M124CE: External with AC line lock SPT-M122CE: Internal
Horizontal resolution:	380 TV lines
Lens mount:	C/CS-mount (Back focus adjustable)
Minimum illumination:	0.06 lx at F1.2 (30 IRE) 0.1 lx at F1.2 (50 IRE) 0.4 lx at F1.2 (100 IRE)
Automatic Gain Control:	Always AGC ON
Phase control:	V-phase control (SPT-M128CE/M124CE)
CCD IRIS control:	ON/OFF switchable, 1/50 to 1/100000 (seconds)
Signal-to-noise ratio:	More than 45 dB (AGC ON)
Video out:	1.0 Vp-p, 75 Ω, sync negative
Operating temperature:	-10 to 50 °C (14 to 122 °F)
Storage temperature:	-40 to 60 °C (-40 to 140 °F)
Power requirements:	SPT-M128CE: AC 220 to 240 V SPT-M124CE: AC 24 V SPT-M122CE: DC 12 V
Power consumption:	SPT-M128CE: 3.5 W SPT-M124CE: 2.5 W SPT-M122CE: 2.4 W
Mass:	SPT-M128CE: Approx. 750 g (1 lb 10 oz) SPT-M124CE/M122CE: Approx. 320 g (11 oz)
Auto iris lens:	DC/Video servo type
Connectors:	SPT-M128CE: LENS (4-pin), VIDEO OUT (BNC) SPT-M124CE: LENS (4-pin), VIDEO OUT (BNC), AC 24 V terminals, GND SPT-M122CE: LENS (4-pin), VIDEO OUT (BNC), DC 12 V terminals

Dimensions

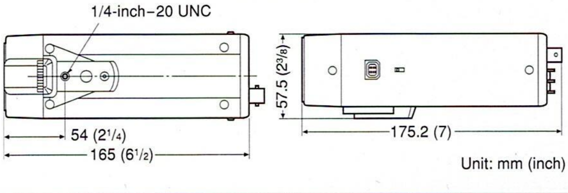
SPT-M122CE/M124CE/M128CE



SPT-M122CE/M124CE



SPT-M128CE



Unit: mm (inch)

SSC-M370CE

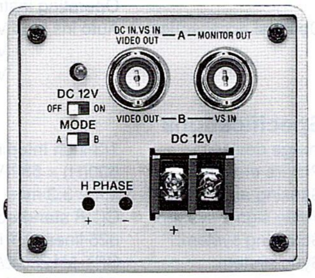
CCD monochrome video camera

•Especially designed for surveillance applications •High density 1/2-inch IT Hyper HAD CCD offers extremely high resolution of 570 TV lines and high sensitivity with a minimum illumination of 0.3 lx (F1.2) •Excellent signal-to-noise ratio of 50 dB •CCD IRIS function allows use of inexpensive manual iris lenses •Variable speed electronic shutter •Accepts C-mount lenses •External synchronization with VS •Single cable operation (video/sync/power triple multiplexing transmission) for easy installation with the optional YS-W150P/W250P Camera Adaptor (Mode A) •Monitor out function for on-the-spot camera positioning (Mode A) •12 V DC power supply can also be used (Mode B)

Hi Resolution
SONY
BACK FOCUS
LENS
CCD-IRIS
BLACK AND WHITE VIDEO CAMERA SSC-M370CE

Lens is optional

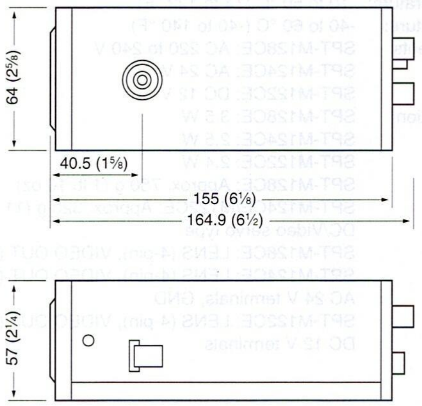
Supplied accessories:	Lens connector Lens mount cap Operating instruction manual	
Optional accessories:	Camera adaptor	YS-W150P, YS-W250P
	Manual iris lens	VCL-S03XM (3.6 mm, F1.6) VCL-S06XM (6.0 mm, F1.2) VCL-S12XM (12 mm, F1.2)
	Auto iris lens	VCL-S03XEA (3.6 mm, F1.6) VCL-S06XEA (6.0 mm, F1.2) VCL-S12XEA (12 mm, F1.2)



Specifications

Image device:	1/2-inch Interline Transfer Hyper HAD CCD
Picture elements:	752 (H) × 582 (V)
Sensing area:	6.3 mm × 4.7 mm
Video signal system:	CCIR standard
Scanning system:	625 lines, 2:1 interlace
Sync system:	Internal or external with VS
Horizontal resolution:	570 TV lines
Lens mount:	C-mount (Back focus adjustable)
Minimum illumination:	AGC ON 0.3 lx at F1.2
Automatic Gain Control:	ON/OFF switchable
Electronic shutter:	1/50, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds)
Phase control:	H-phase control
CCD IRIS control:	ON/OFF switchable
Signal-to-noise ratio:	50 dB (AGC OFF)
Video out:	1.0 Vp-p, 75 Ω, sync negative
Operating temperature:	–10 to 50°C (14 to 122°F)
Storage temperature:	–40 to 60°C (–40 to 140°F)
Power requirements:	DC 24 V from YS-W150P/W250P or DC 12 V from DC 12 V power supply
Power consumption:	4.0 W supplied from YS-W150P/W250P or 2.8 W at DC 12 V
Maximum cable length:	300 m using RG-59B/U (3C-2V) 500 m using RG-6A/U (5C-2V) 600 m using RG-11A/U (7C-2V)
Mass:	Approx. 660 g (1 lb 7 oz)
Connectors:	DC 12 V terminals, LENS (4-pin) Mode A (Triple multiplexing operation): DC IN/VS IN/VIDEO OUT (BNC), MONITOR OUT (BNC) Mode B (DC 12 V operation): VIDEO OUT (BNC), VS IN (BNC)

Dimensions

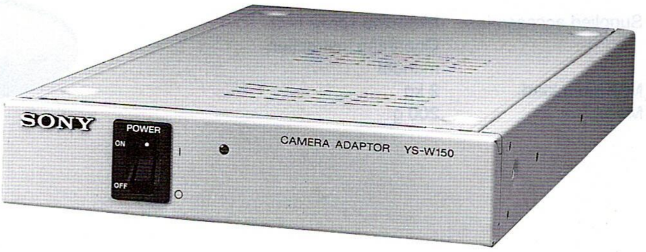


Unit: mm (inch)

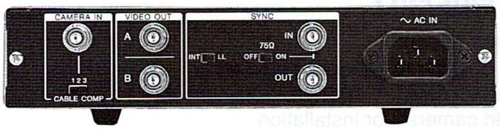
YS-W150P

AC adaptor for SSC-DC50AP/C370P/M370CE/DC10P

•Power supply and video/sync signal transmission by connecting to the camera with a single coaxial cable
•Internal or external synchronization with VS or AC line lock
•Extends the cable length up to 600 metres by using 7C-2V coaxial cable


SONY
POWER
ON
OFF
CAMERA ADAPTOR YS-W150

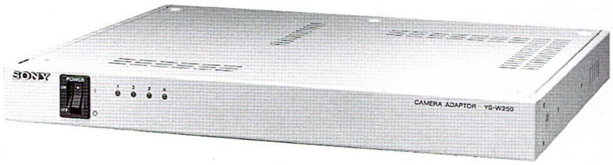
Connectors:	CAMERA IN (BNC) VIDEO OUT (BNC × 2) SYNC IN/OUT (BNC, loop-through, 75Ω ON/OFF)
Power requirements:	AC 220 to 240 V, 50Hz
Power consumption:	15 W
Operating temperature:	–10°C to 50°C (14°F to 122°F)
Maximum cable length:	300 m using RG-59B/U (3C-2V) 500 m using RG-6A/U (5C-2V) 600 m using RG-11A/U (7C-2V)
Dimensions:	212(W) × 52(H) × 330(D) mm (8 3/8 × 2 1/8 × 13 inches)
Mass:	1.9 kg (4 lb 3 oz)


CAMERA IN
VIDEO OUT
SYNC
AC IN
A
B
IN
OUT
75Ω
INT
LL
OFF
ON
1 2 3
CABLE COMP

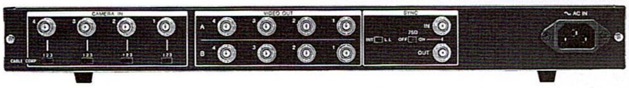
YS-W250P

AC adaptor for SSC-DC50AP/C370P/M370CE/DC10P, DXC-107AP

•Power supply and video/sync signal transmission by connecting to the camera with a single coaxial cable •Up to four cameras can be connected •Internal or external synchronization with VS or AC line lock •Extends the cable length up to 600 metres by using 7C-2V coaxial cable (SSC series camera) or 300 metres with 5C-2V coaxial cable (DXC-107AP)


SONY
POWER
CAMERA ADAPTOR YS-W250

Connectors:	CAMERA IN 1 to 4 (BNC × 4) VIDEO OUT A: 1 to 4 (BNC × 4) VIDEO OUT B: 1 to 4 (BNC × 4) SYNC IN/OUT (BNC, loop-through, 75 Ω ON/OFF)
Power requirements:	AC 220 to 240 V, 50 Hz
Power consumption:	48 W
Operating temperature:	–10°C to 50°C (14°F to 122°F)
Maximum cable length:	300 m using RG-59B/U (3C-2V) 500 m using RG-6A/U (5C-2V) 600 m using RG-11A/U (7C-2V)
Dimensions:	424 (W) × 52(H) × 330(D) mm (16 3/4 × 2 1/8 × 13 inches)
Mass:	3.6 kg (7 lb 15 oz)


CAMERA IN
VIDEO OUT
SYNC
AC IN
CABLE COMP

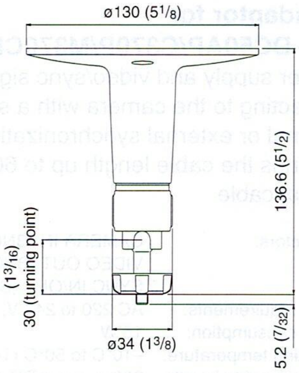
YT-B21

Mounting bracket

- For indoor use

Supplied accessories:	Mounting screw (×4) Operating instruction manual
Maximum load:	2 kg
Mass:	200 g

Dimensions:



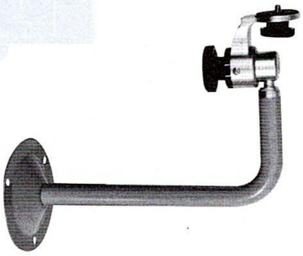
Unit: mm (inch)

T-301/305/307

Mounting bracket

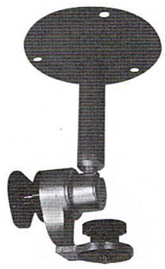
- T-301 - Suitable for mounting housed or unhoused cameras, T-305/307 - Only accept unhoused cameras for installation

Maximum load:	10 kg	
Length:	T-301:	260 mm + 150 mm
	T-305:	Min.275 mm/Max.405 mm
	T-307:	160 mm
Mass:	T-301/305:	0.7 kg
	T-307:	0.6 kg



T-301

T-305



T-307

Lenses for 1/2-inch C-mount cameras

1) Auto-iris Type

(Video servo type)

Models	**VCL-S03XEA**	**VCL-S06XEA**	**VCL-S12XEA**
Mount	C	C	C
Focal length	3.6 mm	6.0 mm	12 mm
Iris control	Auto	Auto	Auto
Maximum aperture ratio	1 : 1.6	1 : 1.2	1 : 1.2
Filter size	—	M43 × 0.75 mm	M43 × 0.75 mm
Mass	88 g (3.1 oz)	128 g (4.5 oz)	126 g (4.4 oz)
Dimensions	ø45(dia.) × 32.9(L) mm ($1^{13}/_{16}$ × $1^{5}/_{16}$ inches)	ø45.5(dia.) × 48.5(L) mm ($1^{13}/_{16}$ × $1^{15}/_{16}$ inches)	ø45.5(dia.) × 48.5(L) mm ($1^{13}/_{16}$ × $1^{15}/_{16}$ inches)
Supply voltage	DC 8 to 16V	DC 8 to 16V	DC 8 to 16V

2) Manual-iris Type

Models	**VCL-S03XM**	**VCL-S06XM**	**VCL-S12XM**
Mount	C	C	C
Focal length	3.6 mm	6.0 mm	12 mm
Iris control	Manual	Manual	Manual
Maximum aperture ratio	1 : 1.6	1 : 1.2	1 : 1.2
Filter size	M35.5 × 0.5 mm	M35.5 × 0.5 mm	M35.5 × 0.5 mm
Mass	66 g (2.3 oz)	74 g (2.6 oz)	60 g (2.1 oz)
Dimensions	ø38(dia.) × 28.6(L) mm ($1^{1}/_{2}$ × $1^{3}/_{16}$ inches)	ø38(dia.) × 36.4(L) mm ($1^{1}/_{2}$ × $1^{7}/_{16}$ inches)	ø38(dia.) × 30.8(L) mm ($1^{1}/_{2}$ × $1^{1}/_{4}$ inches)

Aspherical auto-iris lens for 1/2-inch CS-mount cameras

(DC servo type)

Model	**VCL-3ADXEA**
Mount	CS
Focal length	3.8 mm
Iris control	Auto
Maximum aperture ratio	1 : 0.8
Minimum object distance	0.15m
Filter size	M43 × 0.75 mm
Mass	150 g (5.3 oz)
Dimensions (dia. × H × L)	ø45.0 × 56.8 × 52.5 mm ($1^{13}/_{16}$ × $2^{1}/_{4}$ × $2^{1}/_{8}$ inches)
Cable length	90 mm (3 $^{5}/_{8}$ inch)

Lenses for 1/3-inch CS-mount camera

1) Auto-iris Type

(DC servo type/
Non-EE
amplifier type/
Non-ALC type)

Models	**VCL-4V8WEA**	**VCL-S02WEAP**
Mount	CS	CS
Focal length	3.5 to 8.0 mm	2.8 mm
Iris control	Auto	Auto
Maximum aperture ratio	1 : 1.4	1 : 1.3
Minimum object distance	0.3 m	0.2 m
Filter size	—	M30.5 × 0.5 mm
Mass	72 g (3 oz)	41 g (1.4 oz)
Dimensions (dia. × H × L)	ø35.0 × 54.0 × 46.0 mm ($1^{7}/_{16}$ × $2^{1}/_{4}$ × $1^{13}/_{16}$ inches)	ø32.0 × 39.8 × 33.0 mm ($1^{5}/_{16}$ × $1^{5}/_{8}$ × $1^{5}/_{16}$ inches)
Cable length	100 mm (4 inches)	310 mm ($12^{1}/_{4}$ inch)

Models	**TG0412FCS-3**	**TG0812FCS-3**
Mount	CS	CS
Focal length	4.0 mm	8.0 mm
Iris control	Auto	Auto
Maximum aperture ratio	1 : 1.2	1 : 1.2
Filter size	M30.5 × 0.5 mm	M30.5 × 0.5 mm
Mass	38 g (1.3 oz)	39 g (1.4 oz)
Dimensions (dia. × H × L)	ø32.0 × 39.8 × 33.0 mm ($1^{5}/_{16}$ × $1^{5}/_{8}$ × $1^{5}/_{16}$ inches)	ø32.0 × 39.8 × 33.0 mm ($1^{5}/_{16}$ × $1^{5}/_{8}$ × $1^{5}/_{16}$ inches)
Note	By computar	By computar

2) Manual-iris Type

Models	**T2616FICS-3**	**T0412FICS-3**	**T0812FICS-3**
Mount	CS	CS	CS
Focal length	2.6 mm	4.0 mm	8.0 mm
Iris control	Manual	Manual	Manual
Maximum aperture ratio	1 : 1.6	1 : 1.2	1 : 1.2
Filter size	–	M30.5 × 0.5 mm	M30.5 × 0.5 mm
Mass	45g (1.6 oz)	68g (2.4 oz)	37g (1.3 oz)
Dimensions (dia. × L)	ø34.5 × 34.7 mm ($1^{3}/_{8}$ × $1^{3}/_{8}$ inches)	ø32.0 × 33.0 mm ($1^{5}/_{16}$ × $1^{5}/_{16}$ inches)	ø32.0 × 33.0 mm ($1^{5}/_{16}$ × $1^{5}/_{16}$ inches)
Note	By computar	By computar	By computar

9" SSM-9040P

Colour monitor

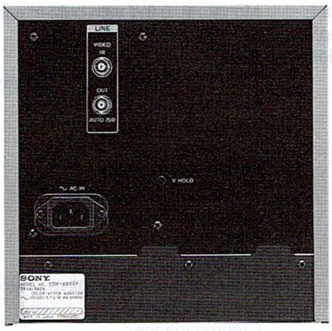
•PAL standard •Trinitron colour monitor especially designed for surveillance applications •Adoption of beam current feedback circuit for high black level stability •Automatic 75Ω termination facility •Front controls: Power, Brightness, Chroma, Contrast •EIA standard 19-inch rack mountable (with optional MB-507 mounting bracket) •Metal cabinet for high immunity to external electrical and magnetic interference

Trinitron
SONY
POWER

Supplied accessory:	Operating instruction manual
Optional accessories:	Rack mounting bracket MB-507 Blanking panel MB-509

Specifications

Video signal system:	CCIR 625 lines, 50 fields
Colour system:	PAL
CRT Type:	22 cm (9-inch) Trinitron Tube, visible picture size 19.7 cm (8-inch) measured diagonally, 70 degree deflection (AG pitch 0.5 mm)
Resolution:	250TV lines at centre
Frequency response:	6.0MHz $\left({}^{+1.5\text{dB}}_{-3.0\text{dB}}\right)$
Aperture correction:	–4.0dB to +6.0dB (at 3.0MHz)
Sync system:	AFC time constant 1.0ms
Normal scan:	6% overscan
H-linearity:	Less than 7.0% (Typical)
V-linearity:	Less than 7.0% (Typical)
Convergence:	Central: 0.4 mm (Typical) Peripheral: 0.5 mm (Typical)
Raster size stability:	H: 1.0% V: 1.5%
HV-regulation:	3.0% (Cut off to High light)
Colour temperature:	6500K
Operating temperature:	0 to 35°C (32 to 95°F)
Storage temperature:	–10 to 40°C (14 to 104°F)
Humidity:	0 to 90%
Power requirements:	AC 100 to 240V, 50/60Hz
Power consumption:	39W
Video input:	BNC, 1Vp-p, sync negative
Video output:	Loop-through BNC, automatic 75Ω termination*
Dimensions:	217(W) × 217(H) × 352.5(D) mm ($8^5/_8$ × $8^5/_8$ × 14 inches)
Mass:	Approx. 7.8 kg (17 lb 3 oz)



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*75Ω termination is automatically set to OFF when connection is made to the OUT connector.

14" SSM-14N5E (PAL/NTSC/SECAM/NTSC$_{4.43}$)

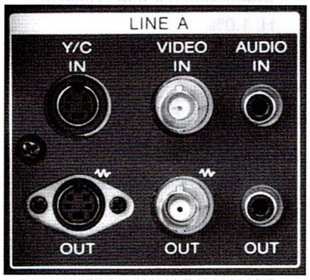
Colour monitor

•Trinitron colour monitor especially designed for surveillance applications •High resolution of 500TV lines •Adoption of beam current feedback circuit for stability in the colour balance •Accepts composite video and Y/C signals •Automatic 75Ω termination facility •On-screen menu for adjustment/operation •Built-in speaker •EIA standard rack mountable (with optional MB-502B and SLR-102) •Metal cabinet for high immunity to external electrical and magnetic interference

Optional accessories:	Rack mounting bracket kit MB-502B Slide rail kit (used with the MB-502B) SLR-102

Specifications

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system:	PAL/NTSC/SECAM/NTSC$_{4.43}$[*1]
Picture tube:	37.1 cm (14-inch), HR Trinitron tube, visible picture size 33.2 cm(min.) (13-inch) measured diagonally, 90° deflection, EBU phosphors
Horizontal resolution:	500TV lines at centre
Audio power output:	Monaural, 0.8W with built-in speaker
Power requirements:	AC 100 to 240V, 50/60Hz
Power consumption:	80W
Dimensions:	346 (W) × 340 (H) × 414 (D) mm ($13^{5}/_{8}$ × $13^{3}/_{8}$ × $16^{5}/_{16}$ inches)
Mass:	15 kg (33 lb 1oz)
VIDEO	
LINE[*2]	Loop-through BNC 1.0Vp-p, sync negative, Automatic 75Ω termination[*3] Loop-through Mini DIN 4-pin Y(luminance): 1.0Vp-p, sync negative, Automatic 75Ω termination[*3] C(chrominance): PAL: 0.3Vp-p, Automatic 75Ω termination[*3] NTSC: 0.286Vp-p, Automatic 75Ω termination[*3]
AUDIO	
LINE	Loop-through Phono –5dBu, high impedance



[*1] The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.

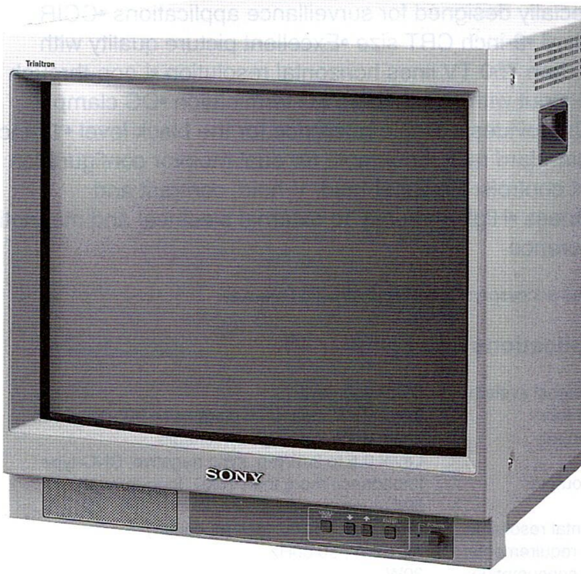
[*2] The Y/C input has priority over the Composite video input.

[*3] 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

20" SSM-20N5E (PAL/NTSC/SECAM/NTSC$_{4.43}$)

Colour monitor

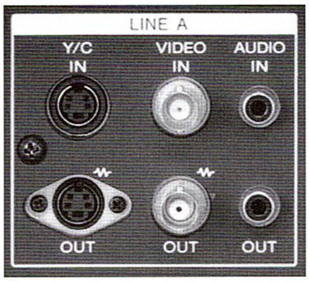
•Trinitron colour monitor especially designed for surveillance applications •High resolution of 500TV lines •Adoption of beam current feedback circuit for stability in the colour balance •Accepts composite video and Y/C signals •Automatic 75Ω termination facility •On-screen menu for adjustment/operation •Built-in speaker •EIA standard rack mountable (with optional SLR-103A) •Metal cabinet for high immunity to external electrical and magnetic interference



Optional accessory:	Slide rail kit SLR-103A

Specifications

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system:	PAL/NTSC/SECAM/NTSC$_{4.43}$*1
Picture tube:	53 cm (20-inch), HR Trinitron tube, visible picture size 48.0 cm (min.) (19-inch) measured diagonally, 90° deflection, EBU phosphors
Horizontal resolution:	500TV lines at centre
Audio power output:	Monaural, 0.8W with built-in speaker
Power requirements:	AC 100 to 240V, 50/60Hz
Power consumption:	105W
Dimensions:	449 (W) x 441 (H) x 502 (D) mm (17$^{11}/_{16}$ x 17$^{3}/_{8}$ x 19$^{3}/_{4}$ inches)
Mass:	28 kg (61 lb 11 oz)
VIDEO	
LINE*2	Loop-through BNC 1.0Vp-p, sync negative, Automatic 75Ω termination*3 Loop-through Mini DIN 4-pin Y(luminance): 1.0Vp-p, sync negative, Automatic 75Ω termination*3 C(chrominance): PAL: 0.3Vp-p, Automatic 75Ω termination*3 NTSC: 0.286Vp-p, Automatic 75Ω termination*3
AUDIO	
LINE	Loop-through Phono –5dBu, high impedance



*1 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.

*2 The Y/C input has priority over the Composite video input.

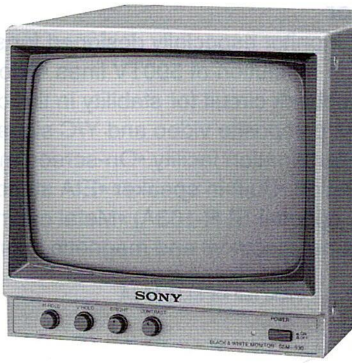
*3 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

9" SSM-930CE

Monochrome monitor

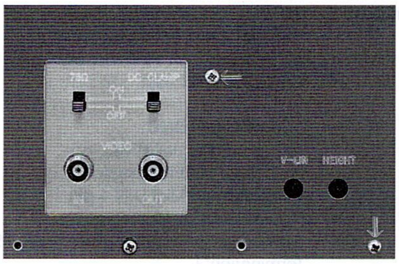
•Especially designed for surveillance applications •CCIR standard •9-inch CRT size •Excellent picture quality with more than 750 TV lines horizontal resolution •Loop-through video input with switchable 75Ω termination •DC clamp switch provides a stable reference for the black level •19-inch EIA standard rack mountable for dual monitor configuration •Front controls: Power H-hold, V-hold, contrast and brightness •High immunity to external electrical and magnetic interference

Supplied accessory: Operating instruction manual



Specifications

Video signal system:	CCIR standard
Picture tube:	9-inch B/W measured diagonally, 90° deflection
Video input:	Impedance 75Ω/high switchable Level 0.5 to 2.0Vp-p, sync negative, BNC-type
Video output:	Impedance more than 10kΩ, loop-through, BNC-type
Horizontal resolution:	More than 750TV lines (at centre)
Power requirements:	AC 220V, 50/60Hz
Power consumption:	30W
Operating temperature:	0 to 40°C (32 to 104°F)
Storage temperature:	–10 to 65°C (14 to 149°F)
Dimensions:	220(W) × 219(H) × 252.8(D) mm (8¾ × 8⅝ × 10 inches)
Mass:	5.8 kg (13 lb)



12" SSM-125CE

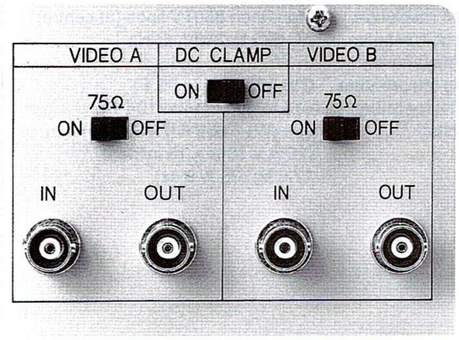
Monochrome monitor

•Especially designed for surveillance applications •CCIR standard •12-inch CRT size •Excellent picture quality with more than 750TV lines horizontal resolution •Dual loop-through video inputs, with switchable 75Ω termination •Front controls: Power, INPUT select, H-hold, V-hold, contrast and brightness •High immunity to external electrical and magnetic interference

Supplied accessory:	Operating instruction manual

Specifications

Video signal system:	CCIR standard
Picture tube:	12-inch B/W measured diagonally, 90° deflection
Video input:	Impedance 75Ω/high switchable Level 0.5 to 2.0Vp-p, sync negative, BNC-type (×2)
Video output:	Impedance more than 10kb, loop-through, BNC-type (×2)
Horizontal resolution:	More than 750 TV lines (at centre)
Power requirements:	AC 230V, 50/60Hz
Power consumption	30W
Operating temperature:	0 to 35°C (32 to 95°F)
Storage temperature:	–10 to 40°C (14 to 104°F)
Dimensions:	296(W) × 303(H) × 300.5(D) mm (11¾ × 12 × 11⅞ inches)
Mass:	9.2 kg (20 lb 5 oz)



17" SSM-175CE

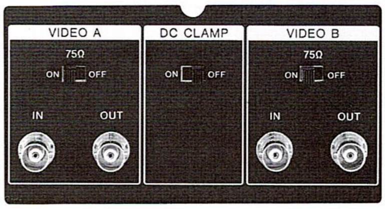
Monochrome monitor

•CCIR standard •17-inch CRT size •Excellent picture quality with more than 850TV lines horizontal resolution •Dual loop-through video inputs, with switchable 75Ω termination •DC clamp switch provides a stable reference for the black level •19-inch EIA standard rack mountable •High resistance to external electrical and magnetic interference •Suitable for many monitoring applications

Supplied accessory:	Operating instruction manual
Optional accessory:	Rack mounting bracket RMM-171

Specifications

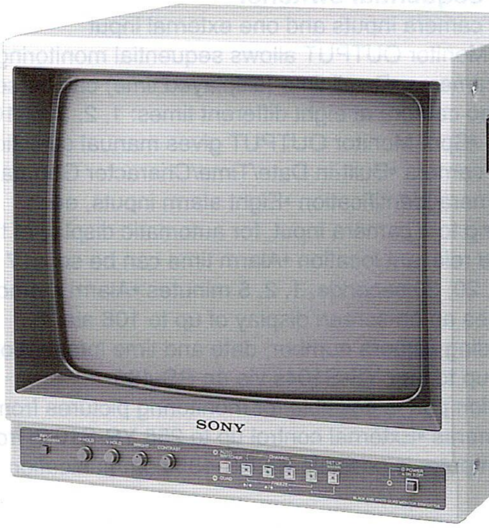
Video signal system:	CCIR standard
Picture tube:	17-inch B/W measured diagonally, 90° deflection
Video input:	BNC (×2), level 0.5 to 2.0Vp-p, sync negative, 75Ω/high impedance switchable with loop-through output
Horizontal resolution	More than 850TV lines (at centre)
Power requirements:	AC 220 to 240V, 50Hz
Power consumption:	37W
Operating temperature:	0 to 35°C (32 to 95°F)
Storage temperature:	–10 to 40°C (14 to 104°F)
Dimensions:	424 (W) × 409 (H) × 380 (D) mm ($16\frac{3}{4} \times 16\frac{1}{8} \times 15$ inches)
Mass:	17.5 kg (38 lb 9 oz)



17" SSM-Q177CE

Monochrome quad monitor

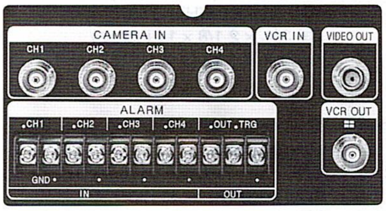
•CCIR standard •Quad Screen Display permits up to four compressed, split pictures to be displayed simultaneously and recorded on a single VCR •High quality compressed images with 8-bit signal processing for clearer pictures •Sequential Switcher Function provides automatic switching between up to four cameras, with a selectable dwell time; SKIP channel also selectable •Newly developed flyback transformer provides the high voltage stability required to minimise picture zooming •Freeze Picture Function can freeze each picture in quad mode, as well as freeze a VCR playback picture •Alarm IN/OUT with audible alarm and flashing LED •Video Loss Detection with on-screen notification •On-screen menus display Date, Time and Camera ID •19-inch EIA standard rack mountable



Supplied accessory:	Operating instructions
Optional accessory:	Rack mounting bracket RMM-171

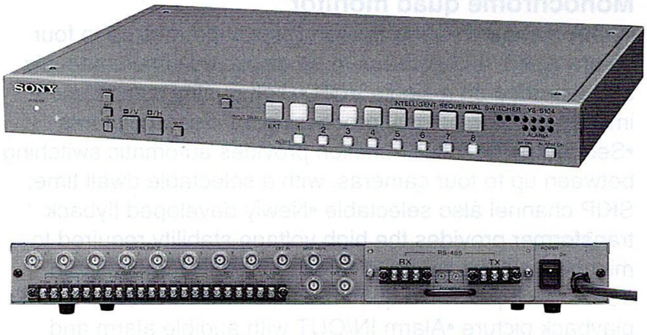
Specifications:

Video signal system:	CCIR standard
Picture tube:	17-inch CRT, measured diagonally, 90 degree deflection
Resolution:	More than 850 lines (full screen)
Camera input/VCR input:	Composite: 1.0 Vp-p, sync negative, 75 Ω
Video output/VCR output:	Composite: 1.0 Vp-p, sync negative, 75 Ω
Power requirements:	AC 230 V, 50/60 Hz
Power consumption:	Approx. 45 W
Operating temperature:	0 to 35°C (32 to 95°F)
Storage temperature:	-10 to 40°C (14 to 104°F)
Operating humidity:	0 to 90% (no condensation)
Storage humidity:	0 to 90% (no condensation)
Dimensions:	424(W) × 409 (H) × 380 (D) mm (16 ⅝ × 16 ⅛ × 15 inches)
Mass:	18.8 kg (41 lb 6 oz)
Regulation compliance:	EN 60 065 (TÜV), CE (EMC, LVD), C-Tick Mark



YS-S104

Intelligent sequential switcher



•Eight video camera inputs and one external input •Sequential Monitor OUTPUT allows sequential monitoring of up to eight cameras •Dwell time (displayed time) can be set for each video camera at eight different times: 1, 2, 3, 5, 10, 20, 30, 60 s. •Spot Monitor OUTPUT gives manual selection of a specific camera •Built-in Date/Time/Character Generator for video camera identification •Eight alarm inputs, each corresponding to a camera input, for automatic display of the picture at the relevant location •Alarm time can be set in 7 steps: 5, 10, 20, 30 seconds, 1, 2, 5 minutes •Alarm memory recall provides an on-screen display of up to 108 alarm events including camera number, date and time information •Cascading up to four YS-S104s via an RS-485 communication port is possible for monitoring pictures from up to 32 cameras •External control up to 255 YS-S104s from a central computer is possible via RS-485 communication port

Supplied accessories:	Rack mount bracket (for 19-inch EIA standard rack) (1 set) Operating instruction manual

Specifications

General

Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	110 mA
Operating temperature:	0 to 40°C (32 to 104°F)
Storage temperature:	–20 to 60°C (–4 to 140°F)
Dimensions:	424(W) × 51.6(H) × 355(D) mm (16 3/4 × 2 1/8 × 14 inches)
Mass:	Approx. 4.1 kg (9 lb 1 oz)

Input signals

CAMERA INPUT 1 to 8:	BNC type, PAL colour, 1.0 Vp-p, 75 Ω, unbalanced, sync negative
EXT (External) IN:	BNC type, PAL colour, 1.0 Vp-p, 75 Ω, unbalanced, sync negative
ALARM INPUT 1 to 8:	M3 screw type, alarm activated when connected to COM (Connection resistance less than 600 Ω) Max. DC voltage on input, 5 V
REV (Recovery) IN:	M3 screw type, DC 5V, impedance 2.2 kΩ
EXT (External) TIMING IN:	BNC type, open circuit voltage DC 5 V, impedance 5.6 kΩ

Output signals

SPOT MON (Monitor) OUTPUT:	BNC type, impedance 75 Ω
SEQ MON (Sequential monitor) OUTPUT:	BNC type, impedance 75 Ω
ALARM OUT:	M3 screw type, open collector output, contact rating DC 5 V/100 mA resistive load
RESET OUT:	M3 screw type, DC 4 V, impedance 1 kΩ
EXT (External) TIMING OUT:	BNC connector, open collector output, contact rating DC 5 V/100 mA resistive load

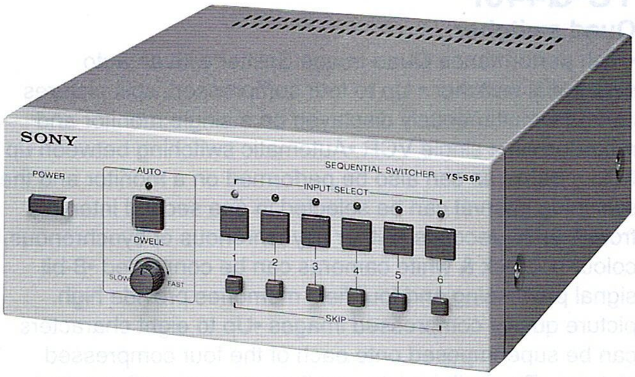
Others

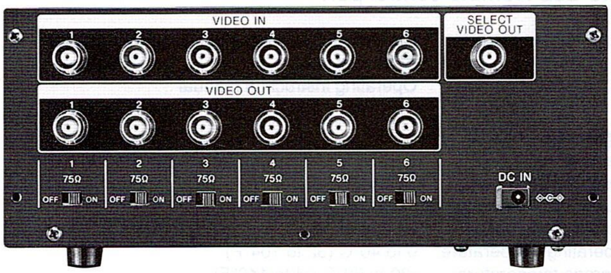
Interface unit:	RS-485 interface

YS-S6

Six-channel sequential switcher

•Compact-size sequential switcher for small surveillance systems •Accepts also NTSC/EIA signal •Six video inputs with loop-through capability •The pictures from up to six video cameras can be monitored seqentially via the SELECT VIDEO OUT •Dwell time is selectable anywhere from 1 to 30 seconds per camera input •INPUT SELECT button gives manual selection of a specific camera •SKIP function for unused video input channel


SONY
POWER
AUTO
DWELL
SLOW
FAST
SEQUENTIAL SWITCHER YS-S6P
INPUT SELECT
1
2
3
4
5
6
SKIP


VIDEO IN
SELECT VIDEO OUT
VIDEO OUT
1
2
3
4
5
6
75Ω
OFF
ON
DC IN

Supplied accessory: Operating instruction manual

Note: AC adaptor is an option.

Specifications

General

Power requirements:	DC 9 V
Power consumption:	Approx. 1 W
Operating temperature:	0 to 40°C (32 to 104°F)
Storage temperature:	–20 to 60°C (–4 to 140°F)
Dimensions:	220(W) × 96(H) × × 265.5(D) mm (8 3/4 × 3 7/8 × 10 1/2 inches)
Mass:	Approx. 2.1 kg (4 lb 10 oz)

Inputs

VIDEO INPUT 1 to 6:	BNC type, 1.0 Vp-p, 75 Ω, unbalanced, sync negative
DC IN:	DC jack type, DC 9 V (DC 7 V to 15 V is permissible)

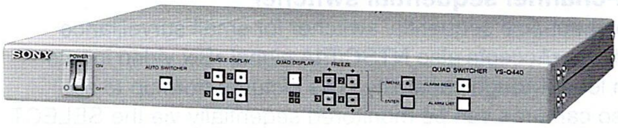
Outputs

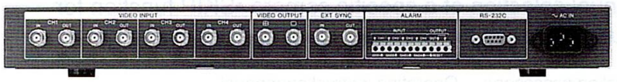
VIDEO OUTPUT 1 to 6:	BNC type, loop-through output of VIDEO INPUT, 75 Ω termination ON/OFF switchable
SELECT VIDEO OUT:	BNC type, 1.0 Vp-p, 75 Ω, unbalanced, sync negative

YS-Q440P

Quad switcher

•High performance Quad Image Splitter with an auto sequential switcher • Up to four compressed, split pictures can be simultaneously displayed on a single monitor and recorded on a single VCR •Automatic switching between up to four cameras can also be performed on a monitor and the switching interval can be selected in one second intervals from 1 to 30 seconds •Either asynchronous or synchronous, colour or black & white cameras can be connected •8-bit signal processing and four field memories provide high picture quality compressed images •Up to eight characters can be superimposed onto each of the four compressed pictures •The built-in date and time generator allows time and date information to be displayed •Freeze picture function (Quad mode only) •Alarm function •Video loss detection •RS-232 Remeto control port





Supplied accessories:	Rack mounting bracket (for EIA standard rack) AC power cord Operating instruction manual

Specifications

General

Video signal system:	CCIR/PAL standard
Power requirements:	AC 220 to 240 V, 50 Hz
Power consumption:	Less than 10 W
Operating temperature:	0 to 40°C (32 to 104°F)
Storage temperature:	-20 to 60°C (-4 to 140°F)
Dimensions:	430(W) × 44(H) × 350(D) mm (17 × 1 ¾ × 12 ⅞ inches) (without projecting parts and controls)
Mass:	Approx. 3.8 kg (8 lb 4 oz)

Video input/output

Video input:	VIDEO INPUT CH1 to CH4, 1.0 Vp-p, 75 Ω automatic termination Input (BNC type) x 4 Loop through output (BNC type) x 4
Video output:	VIDEO OUT (BNC type) x 1 Quad-picture image signal 1.0 Vp-p, 75 Ω VIDEO OUT (BNC type) x 1 Quad, Sequential, Full screen signal (selectable) 1.0 Vp-p, 75 Ω

Sync

External SYNC IN	1.0 Vp-p, 75 Ω VBS or VS signal
External SYNC OUT	1.0 Vp-p, 75 Ω VBS or VS signal

Control

Remote connector:	REMOTE (D-sub 9 pin RS-232C port)
Alarm input:	ALARM IN terminal x 4 CMOS "L" level or MAKE
Alarm output:	ALARM OUT terminal x 1 Relay Out, switching DC 30 V at up to 2 A RESET OUT terminal x 1 Open Collector Output up to 12 V 20 mA

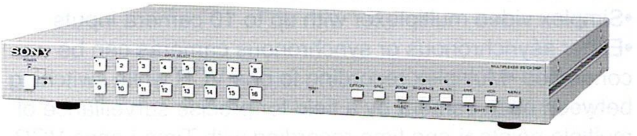
Other

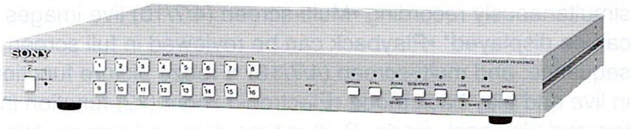
Alarm hold duration:	1 to 30 s (one second increments) 30 to 180 s (ten second increments) Manual
Auto sequential duration:	1 to 30 s (one second increments)
Picture tone:	8-bit video (256 gradations)

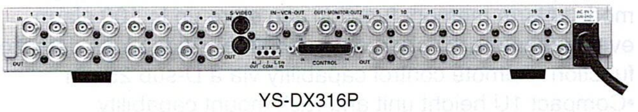
YS-DX316P/DX216CE

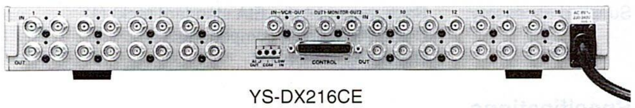
Multiplexer

•Full duplex video multiplexer with up to 16 camera inputs •Either asynchronous or synchronous cameras can be connected •Multiplex recording to one VCR while switching between each camera by a field for precise surveillance of multiple points •Long time recording with Time Lapse VCR •Video loop through for up to 16 cameras •Live pictures can be displayed in full screen, sequence, multi-screen (4/7/10/13/16) while simultaneously recording •Auto sequential switching in quad mode in addition to full screen sequence switching •Playback can be reviewed in full screen, sequence, and multi-screen (4/7/10/13/16) •Recorded images can be played back in the bottom right screen of the 13 or 16-picture display simultaneously with live images •Live images can be displayed in the bottom right screen of the 13 or 16-picture display simultaneously with recorded images •MONITOR 2 can be used for spot monitoring •Freeze picture function in both live and playback mode •Electronic zoom (x2) function in both live and play back mode •Built in time/date and camera title generator •Easy on screen setup •16 alarm inputs, each corresponding to a camera input •Programmable freeze, zoom and buzzer functions in 16-picture split mode for alarm inputs •Alarm monitor function automatically provides independent monitoring of channels in which alarms occur on MONITOR 2 •Programmable alarm recording time mode •Alarm memory function can store up to 100 alarm events (camera number, date and time) •Video loss detection function •Remote control capability via a D-sub 25-pin •Compact 1U height unit and rack mount capability


YS-DX316P


YS-DX216CE


YS-DX316P


YS-DX216CE

Supplied accessories:	Rack mount kit (for EIA standard rack) (1) D-sub 25-pin plug components (1) Operating manual (1)

Specifications

General

Video Signal System:	DX316P: PAL standard, DX216CE: CCIR standard
Power requirements:	AC 120 V, 50 Hz
Power consumption:	DX316P: 22 W DX216CE: 16W
Operating temperature:	0 to 45° C (32 to 113° F)
Mass:	4.2 kg (9 lb 4 oz)

Video inputs

Camera input 1 to 16:	DX316P: BNC type, VS or VBS, 1.0 Vp-p, 75 Ω DX216CE: BNC type, VS, 1.0 Vp-p, 75 Ω
VCR input:	DX316P: BNC type, VS or VBS, 1.0 Vp-p, 75 Ω, Auto termination type DX216CE: BNC type, VS, 1.0 Vp-p, 75 W
S-VHS Y/C inputs:	DX316P only: Din Connector, Y: 1.0 Vp-p, 75 Ω C: 0.286 Vp-p, 75 Ω

Video outputs

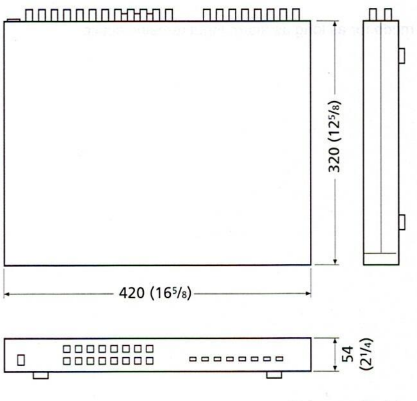
Camera output 1 to 16:	DX316P: BNC type, VS or VBS, 1.0 Vp-p, 75 Ω DX216CE: BNC type, VS, 1.0 Vp-p, 75 Ω
Monitor 1 output:	DX316P: BNC type x 1, VS or VBS DX216CE: BNC type x 1, VS
Monitor 2 output:	DX316P: BNC type x 1, VS or VBS DX216CE: BNC type x 1, VS
VCR output:	DX316P: BNC type, VS or VBS, 1.0 Vp-p, 75 Ω DX216CE: BNC type, VS, 1.0 Vp-p, 75 Ω
S-VHS Y/C output:	DX316P only: Din Connector, Y: 1.0 Vp-p, 75 Ω C: 0.286 Vp-p, 75 Ω

Other

Synchronization:	Asynchronous individual inputs
Alarm output:	DC 5 V 5.7 kW
Alarm duration:	10, 20, 30, 40, 50, 60, CC* s
Switch input from VCR:	Low active 100 kW pull-up
Control terminal:	D-sub 25 pin: Alarm input: contact close (x 16) Remote control input
Sequence time:	0.5 to 30 s (0.5 s increments)
On-screen display:	8 character title, date/time
Buzzer:	ON/OFF

* Stays in alarm mode for as long as alarm input remains active

Dimensions



Unit: mm (inch)

YS-SX310P/SX210CE

•Simplex video multiplexer with up to 10 camera inputs •Either asynchronous or synchronous cameras can be connected •Multiplex recording to one VCR while switching between each camera by a field for precise surveillance of multiple points •Long time recording with Time Lapse VCR •Video loop through for up to 10 cameras •Live pictures can be displayed in full screen or in full screen or sequence while simultaneously recording •Multi-screen (4/7/10) live images can be displayed* •Playback can be reviewed in full screen, sequence, and multi-screen (4/7/10) •Freeze picture function in live and play back mode •Electronic zoom (x2) function in live and play back mode •Built in time/date and camera title generator •Easy on screen setup •10 alarm inputs, each corresponding to a camera input •Alarm monitor function automatically provides independent monitoring of channels on which alarms occur •Programmable alarm recording time mode •Alarm memory function can store up to 100 alarm events (camera number, date and time) •Video loss detection function •Remote control capability via a D-sub 25-pin •Compact 1U height unit and rack mount capability

* This feature is not applicable when unit recording with a VCR

Supplied accessory:	Rack mount kit (for EIA standard rack) (1) D-sub 25-pin plug components (1) Operating manual (1)

Specifications

General

Video Signal System:	SX310P: PAL standard, SX210CE: CCIR standard
Power requirements:	AC 220-240 V, 50 Hz
Power consumption:	SX310P: 15 W SX210CE: 12 W
Operating temperature:	0 to 45° C (32 to 113° F)
Mass:	4.2 kg (9 lb 4 oz)

Video inputs

Camera input 1 to 10:	SX310P: BNC type, VS or VBS, 1.0 Vp-p, 75 Ω SX210CE: BNC type, VS, 1.0 Vp-p, 75 Ω
VCR input:	SX310P: BNC type, VS or VBS, 1.0 Vp-p, 75 Ω, Auto termination type SX210CE: BNC type, VS, 1.0 Vp-p, 75 W

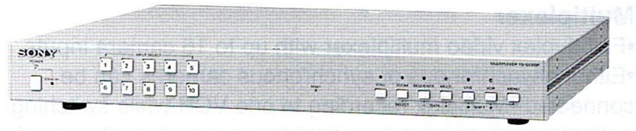
Video outputs

Camera output 1 to 10:	SX310P: BNC type, VS or VBS, 1.0 Vp-p, 75 Ω SX210CE: BNC type, VS, 1.0 Vp-p, 75 Ω
Monitor output:	SX310P: BNC type x 1, VS or VBS SX210CE: BNC type x 1, VS
VCR output:	SX310P: BNC type, VS or VBS, 1.0 Vp-p, 75 Ω SX210CE: BNC type, VS, 1.0 Vp-p, 75 Ω

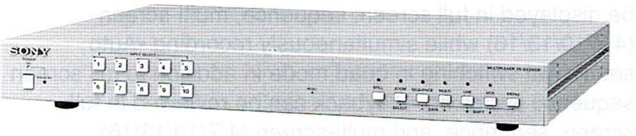
Other

Synchronization:	Asynchronous individual inputs
Alarm output:	DC 5 V 5.7 kW
Alarm duration:	10, 20, 30, 40, 50, 60, CC* s
Switch input from VCR:	Low active 100 kW pull-up
Control terminal:	D-sub 25 pin: Alarm input: contact close (x 10) Remote control input
Sequence time:	0.5 to 30 s (0.5 s increments)
On-screen display:	8 character title, date/time
Buzzer:	ON/OFF

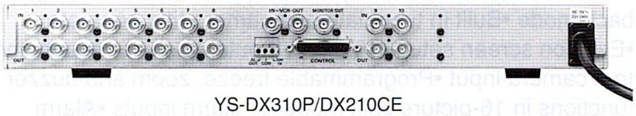
* Stays in alarm mode for as long as alarm input remains active



YS-DX310P

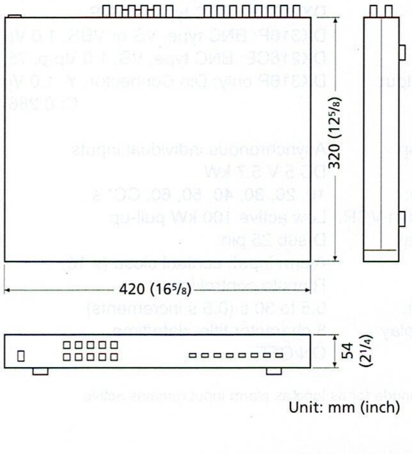


YS-DX210CE



YS-DX310P/DX210CE

Dimensions



Unit: mm (inch)

SVT-L230P

Time lapse videocassette recorder

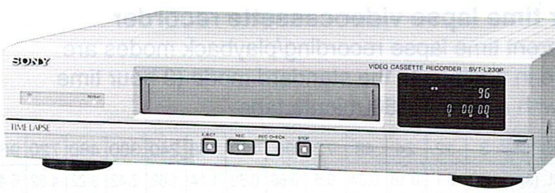
•Sony's 'RealAction' technology allows high density recording of 16.6 fields per second •Maximum 96-hour time lapse recording mode is available with a 240-minute tape

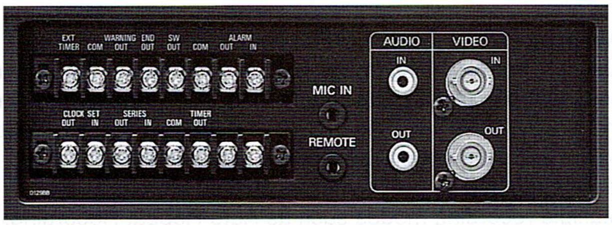
TIME MODE (h)	8	24	40	64	96
INTERVAL (s)	1/50	1/20	1/12	0.15	0.22

•Maximum 72-hour time lapse recording mode is available with a 180-minute tape

TIME MODE (h)	6	18	30	48	72
INTERVAL (s)	1/50	1/20	1/12	0.15	0.22

•Adaptive Picture Control (APC) delivers optimum picture quality to the recording image •Audio recording and playback are possible in 8, 24, 40-hour modes (E-240) and in 6, 18, 30-hour modes (E-180) •Built-in time and date generator allows time and date information to be displayed along with the Alarm count and Recording/Playback speed •Various recording modes such as Auto Repeat Recording, Timer Recording, Alarm Recording and Series Recording for versatile situations •Daylight Saving Time setting function •Holiday setting function •Camera switcher interface •Quick recording check function •By using alarm recall, scan and search functions, pictures recorded during alarm mode can be easily checked •Field-by-field picture playback capability •External timer input capability •Automatic clock adjusting is possible when several VTRs are used •On-screen display permits easy-to-follow operation •Auto head cleaning function •Tape before-end / Tape-end signal output capabilities •Warning signal output capability •Buzzer function •Power-failure protection for up to 30 days •Security lock function for avoiding accidental operation errors •Loop-through capability enables video and audio to be output through to the monitor automatically •Clog detection function •Remote control capability of basic operational functions through ø3.5 mm mini jack •External control capability via an optional RS-232C interface





Supplied Accessories:	AC power cord Operation manual
Optional Accessories:	SVT-RM10 Remote control unit SVT-RS1A Computer Interface Board TLV parts kit TPK-888P

Specifications

General

Mass:	5.8 kg (12 lb 9 oz)
Dimensions:	420 (W) × 100 (H) × 340 (D) mm (16 ⅝ × 4 × 13 ½ inches)
Power requirements:	AC 220 to 240 V, 50 Hz
Power consumption:	17 W
Operating temperature:	5 to 40 °C (41 to 104 °F)
Operating humidity:	Less than 80%

System

Video signal:	CCIR standard (monochrome)/ PAL (colour)
Recording playback system:	Rotary four-head helical scanning system
Tape speed:	11.70 mm/second (6 or 8-hour mode)
Recording/Playback mode:	8, 24, 40, 64, 96 hours (with an E-240 tape) 6, 18, 30, 48, 72 hours (with an E-180 tape)
Fast forward/Rewind time:	Approx. 2.5 minutes (with an E-180 tape)

Video

Input:	1.0 Vp-p, 75 Ω, unbalanced (BNC-type)
Output:	1.0 Vp-p, 75 Ω, unbalanced (BNC-type)
Horizontal resolution:	Colour mode: More than 240 TV lines Black & white mode: More than 320 TV lines
Signal-to-noise ratio:	42 dB

Audio

Audio recording system:	Monaural
Input:	-7.8 dBu, 47 kΩ (Phono jack)
Output:	-7.8 dBu, 600Ω (Phono jack)
Microphone input:	-60 dBu, 600 Ω (3.5 mm mini jack)
Distortion:	Less than 4%
Audio signal-to-noise ratio:	40 dB

Others

Alarm input:	Low level
Alarm output:	+5 V, 5.7 kΩ (Low active)
Switch output:	+5 V, 5.7 kΩ
Tape end output:	+5 V, 5.7 kΩ (Low active)
Warning output:	+5 V, 5.7 kΩ (Low active)
Timer output:	+5 V, 5.7 kΩ (High active)
External timer input:	Low level
Clock set output:	+5 V, 5.7 kΩ (Low active)
Clock set input:	Low level
Series output:	+5 V, 5.7 kΩ (Low active)
Remote control input:	3.5 mm mini jack (1)

SVT-5050P

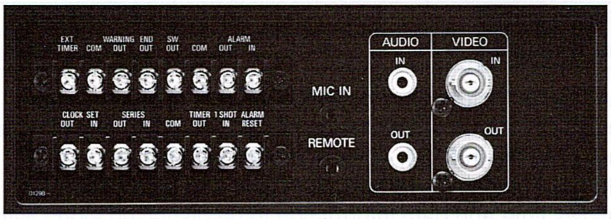
Colour time lapse videocassette recorder

•12 different time lapse recording/playback modes are available in addition to the standard mode (3 hour time mode) with a normal 180-minute tape

TIME MODE (h)	3	12	24	48	72	96	120	168	240	360	480	720	960
INTERVAL (s)	1/50	0.1	0.18	0.34	0.5	0.66	0.82	1.14	1.62	2.42	3.22	4.82	6.42

Note: In time lapse modes, it is possible to additionally record three hours longer than the original modes.

SONY
VIDEO CASSETTE RECORDER SVT-5050P
TIME LAPSE
EJECT
REC
REC CHECK
STOP



•Adaptive Picture Control (APC) delivers optimum picture quality to the recording image •A tape recorded in the 3-hour mode can be played back by any VHS VCR •Audio recording and playback are possible in 3,12 and 24-hour modes •Built-in time and date generator allows a required scene to be easily searched by presetting the desired time and date •Multiple recording modes such as Auto Repeat Recording, Timer Recording, Alarm Recording, One-shot Recording and Series Recording for versatile situations •Holiday setting function •Daylight Saving Time setting function •Quick recording check function •By using alarm recall/scan/search functions, pictures recorded during alarm mode can also be easily checked •Field-by-field picture playback capability •External timer input capability •Automatic clock adjusting possible when several VCRs connected •On-screen display permits easy-to-follow operation •Auto head cleaning function •Tape before-end signal output/Tape-end output capability •Warning signal output capability •Buzzer setting function •Power-failure protection for up to 30 days •Security lock function for avoiding accidental operation errors •External control capability via an optional RS-232C interface •Remote control capability of basic operational functions through ø3.5mm mini jack

Supplied accessories:	AC power cord Operating instruction manual
Optional accessories:	RS-232C interface board SVT-RS1A Remote control unit SVT-RM10 TLV parts kit TPK-887P

Specifications

General

Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	18 W
Operating temperature:	5 to 40°C (41 to 104°F)
Operating humidity:	Less than 80%
Dimensions:	420 (W) × 100 (H) × 349 (D) mm ($16\frac{5}{8}$ × 4 × $13\frac{3}{4}$ inches)
Mass:	Approx. 5.5 kg (12 lb 2 oz)
Tape speed:	23.39 mm/sec (3-hour mode)
Recording/playback time:	3, 12, 24, 48, 72, 96, 120, 168, 240, 360, 480, 720 and 960 hours (with an E-180 tape) (One shot mode is also available)
Alarm recording speed:	3, 12-hour mode, NC*1
Alarm recording duration:	20 s, 40 s, 1 m, 2 m, 3 m, 4 m, 5 m, CC*2
Fast forward/rewind time:	Approx. 4 minutes (with an E-180 tape)

Video

Recording system:	Rotary four-head helical scanning system Luminance signal: FM recording Colour signal: Low-pass band-pass transformation direct recording
Input:	1.0 Vp-p, 75 Ω, unbalanced (BNC type)
Output:	1.0 Vp-p, 75 Ω, unbalanced (BNC type)
Horizontal resolution:	Colour mode: More than 240 TV lines Black & White mode: More than 350 TV lines
Signal-to-noise ratio:	43 dB

Audio

Audio recording mode:	3, 12 and 24-hour mode
Input:	–7.8 dBu, 47 kΩ (phono jack)
Output:	–7.8 dBu, 600 Ω (phono jack)
Microphone input:	–60 dBu, 600 Ω (ø3.5 mm mini jack)

Others

Alarm input:	Low level
Alarm output:	+5 V, 5.7 kΩ (Low active)
Switch output:	+5 V, 5.7 kΩ (Low active)
Tape end output:	+5 V, 5.7 kΩ (Low active)
Warning output:	+5 V, 5.7 kΩ (Low active)
Timer output:	+12 V, 5.7 kΩ (high active)
External timer input:	Low level
Clock set output:	+5 V, 5.7 kΩ (Low active)
Clock set input:	Low level
Series output:	+5 V, 5.7 kΩ (Low active)
Series input:	Low level
One-shot input:	Low level
Alarm reset:	Low level
Control terminals:	ø3.5 mm mini jack Optional RS-232C interface (D-sub 9-pin)

Notes: *1 No change of recording speed
*2 Duration of alarm recording continues for as long as alarm input remains active.

SVT-S3050P

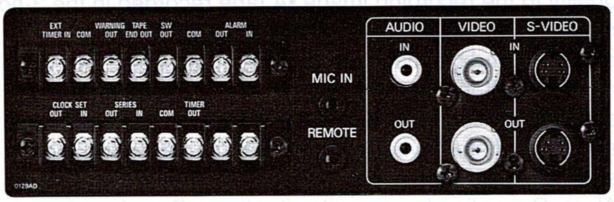
S-VHS Time Lapse Videocassette Recorder

SONY
VIDEO CASSETTE RECORDER SVT-S3050P
S-VHS
TIME LAPSE
EJECT
REC
REC CHECK
STOP

•High horizontal resolution of 400 TV lines using S-VHS format •Excellent signal-to-noise ratio of 45 dB •7 different time lapse recording/playback modes are available in addition to the standard mode (3-hour time mode) with a normal 180-minute tape

TIME MODE (h)	3	12	24	48	72	96	120	168
INTERVAL (s)	1/50	0.1	0.18	0.34	0.5	0.66	0.82	1.14

Note : In time lapse mode, it is possible to additionally record three hours longer than original modes.



•Adaptive Picture Control (APC) delivers optimum picture quality to the recording image •A tape recorded in the 3-hour mode can be played back by any S-VHS or VHS VTR •Audio recording and playback are possible in 3, 12 and 24-hour modes •Built-in time and date generator allows time and date information to be displayed along with the Alarm count and Recording/Playback speed •Various recording modes such as Auto Repeat Recording, Timer Recording and Alarm Recording for versatile situations •Holiday setting function •Daylight Saving Time setting function •Quick recording check function •By using alarm recall and scan functions, pictures recorded during alarm mode can be easily checked •Field-by-field picture playback capability •External timer input capability •Automatic clock adjusting is possible when several VTRs are connected •On-screen display permits easy-to-follow operation •Auto head cleaning function •Tape before-end signal output/Tape-end output capability •Warning signal output capability •Buzzer setting function •Power-failure protection for up to 30 days •Security lock function for avoiding accidental operation errors •External control capability via an optional RS-232C interface •Remote control capability of basic operational functions through ø3.5 mm mini jack (optional Remote Control Unit SVT-RM10)

Supplied Accessories:	AC power cord (1) Operation manual (1)
Optional Accessory:	RS-232C interface board SVT-RS1A Remote control unit SVT-RM10 TLV parts kit TPK-885P

Specifications

General

Tape format:	S-VHS or VHS
Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	18 W
Operating temperature:	5˚C to 40˚C (41˚F to 104˚F)
Operating humidity:	Less than 80%
Dimensions:	420 (W) × 100 (H) × 340 (D) mm (16 5/8 × 4 × 13 1/2 inches)
Mass:	Approx. 5.8 kg (12 lb 9 oz)
Tape speed:	23.39 mm/sec (3-hour mode)
Recording/playback time:	3, 12, 24, 48, 72, 96, 120 and 168 hours (with an SE/E-180 tape)
Alarm recording speed:	3, 12-hour mode, NC*[1]
Alarm recording duration:	20 s, 1 m, CC*[2]
Fast forward/rewind time:	Approx. 4 minutes (with an SE/E-180 tape)

Video

Recording system:	Rotary four-head helical scanning system Luminance signal: FM recording Colour signal: Low-pass band-pass transformation direct recording
Input:	BNC: 1.0 Vp-p, 75 Ω, unbalanced S-VIDEO: Mini DIN 4-pin Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, at burst level, 75 Ω
Output:	BNC : 1.0 Vp-p, 75 Ω, unbalanced S-VIDEO: Mini DIN 4-pin Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, at burst level, 75 Ω
Horizontal resolution:	Colour mode : More than 400 TV lines (S-VHS) Black & White mode: More than 400 TV lines (S-VHS)
Signal-to-noise:	45 dB (S-VHS)

Audio

Audio recording mode:	3, 12 and 24-hour mode
Input:	–7.8 dBu, 47 kΩ (phono jack)
Output:	–7.8 dBu, 600 Ω (phono jack)
Microphone input:	–60 dBu, 600 Ω (ø3.5 mm mini jack)

Others

Alarm input:	Low level
Alarm output:	+5 V, 5.7 kΩ (Low active)
Switch output:	+5 V, 5.7 kΩ (Low active)
Tape end output:	+5 V, 5.7 kΩ (Low active)
Warning output:	+5 V, 5.7 kΩ (Low active)
Timer output:	+12 V, 5.7 kΩ (High active)
External timer input:	Low level
Clock set input:	Low level
Clock set output:	+5 V, 5.7 kΩ (Low active)
Series input:	Low level
Series output:	+5 V, 5.7 kΩ (Low active)
Control terminals:	ø3.5 mm mini jack Optional RS-232C interface (D-sub 9-pin)

*[1] No change of recording speed
*[2] Duration of alarm recording continues for as long as alarm input remains active.
0 dBu = 0.775 Vrms

SVT-1000P

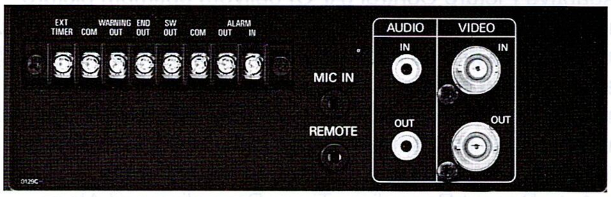
Colour time lapse videocassette recorder

•4 different time lapse recording/playback modes are available in addition to the standard mode (3 hour time mode) with a normal 180-minute tape

TIME MODE (h)	3	12	24	48	72
INTERVAL (s)	1/50	0.1	0.18	0.34	0.5

Note: In time lapse modes, it is possible to additionally record three hours longer than the original modes.

SONY
VIDEO CASSETTE RECORDER SVT-1000P
TIME LAPSE



•Adaptive Picture Control (APC) delivers optimum picture quality to the recording image •A tape recorded in the 3-hour mode can be played back by any VHS VCR •Audio recording and playback are possible in 3,12 and 24-hour modes •Built-in time and date generator allows time and date information to be displayed along with the Alarm count and Recording/Playback speed •Various recording modes such as Auto Repeat Recording, Timer Recording and Alarm Recording for versatile situations •By using alarm recall and scan functions, pictures recorded during alarm mode can be easily checked •Holiday setting function •Daylight Saving Time setting function •Quick Recording check function •Field-by-field picture playback capability •External timer input capability •On-screen display permits easy-to-follow operation •Auto head cleaning function •Tape before-end signal output/Tape-end output capability •Warning signal output capability •Buzzer setting function •Power-failure protection for up to 30 days •Security lock function for avoiding accidental operation errors •External control capability via an optional RS-232C interface •Remote control capability of basic operational functions through ø3.5mm mini jack

Supplied accessories:	AC power cord Operating instruction manual
Optional accessories:	RS-232C interface board SVT-RS1A Remote control unit SVT-RM10 TLV parts kit TPK-887P

Specifications

General

Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	18 W
Operating temperature:	5 to 40°C (41 to 104°F)
Operating humidity:	Less than 80%
Dimensions:	420 (W) × 100 (H) × 349 (D) mm ($16\frac{5}{8} \times 4 \times 13\frac{3}{4}$ inches)
Mass:	Approx. 5.5 kg (12 lb 2 oz)
Tape speed:	23.39 mm/sec (3-hour mode)
Recording/playback time:	3, 12, 24, 48 and 72 hours (with an E-180 tape)
Alarm recording speed:	3, 12-hour mode, NC[*1]
Alarm recording duration:	20 s, 1 m, CC[*2]
Fast forward/rewind time:	Approx. 4 minutes (with an E-180 tape)

Video

Recording system:	Rotary four-head helical scanning system Luminance signal: FM recording Colour signal: Low-pass band-pass transformation direct recording
Input:	1.0 Vp-p, 75 Ω, unbalanced, sync negative (BNC type)
Output:	1.0 Vp-p, 75 Ω, unbalanced, sync negative (BNC type)
Horizontal resolution:	Colour mode: More than 240 TV lines Black & White mode: More than 320 TV lines
Signal-to-noise ratio:	43 dB

Audio

Audio recording mode:	3, 12 and 24-hour mode
Input:	–7.8 dBu, 47 kΩ, unbalanced (phono jack)
Output:	–7.8 dBu, 600 Ω, unbalanced (phono jack)
Microphone input:	–60 dBu, 600 Ω (ø3.5mm mini jack)

Others

Alarm input:	Low level
Alarm output:	+5 V, 5.7 kΩ (Low active)
Switch output:	+5 V, 5.7 kΩ (Low active)
Tape end output:	+5 V, 5.7 kΩ (Low active)
Warning output:	+5 V, 5.7 kΩ (Low active)
External timer input:	Low level
Control terminals:	ø3.5 mm mini jack Optional RS-232C interface (D-sub 9-pin)

[*1] No change of recording speed

[*2] Duration of alarm recording continues for as long as alarm input remains active.

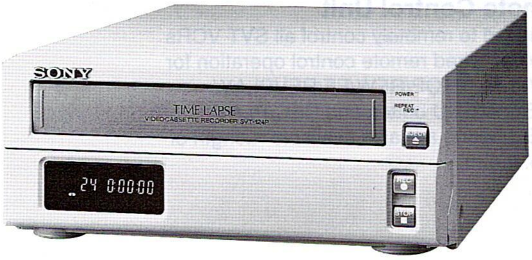
SVT-124P

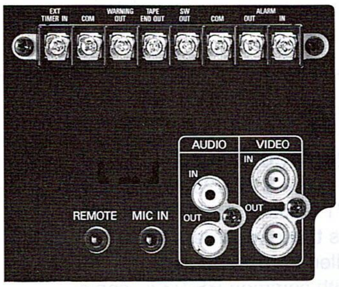
Colour Time Lapse Videocassette Recorder

- Two different time lapse recording/playback modes are available in addition to the standard mode (3-hour time mode) with a normal 180-minute tape

TIME MODE (h)	3	12	24
INTERVAL (s)	1/50	0.1	0.18

•Compact body with a 240 mm width •Adaptive Picture Control (APC) delivers optimum picture quality to the recording image •Audio recording and playback are possible in 3, 12 and 24-hour modes •Built-in time and date generator allows time and date information to be displayed along with the Alarm count and Recording/Playback speed •Various recording modes such as Auto Repeat Recording, Timer Recording and Alarm Recording for versatile situations •Holiday setting function •Daylight Saving Time setting function •Camera switcher interface •Quick recording check function •By using alarm recall and scan functions, pictures recorded during alarm mode can be easily checked •Field-by-field picture playback capability •External timer input capability •Automatic clock adjusting is possible when several VTRs are connected •On-screen display permits easy-to-follow operation •Auto head cleaning function •Tape before-end signal output / Tape-end output capability •Warning signal output capability •Buzzer setting function •Power-failure protection for up to 30 days •Security lock function for avoiding accidental operation errors •Clog detection function •Remote control capability of basic operational functions through ø3.5 mm mini jack (optional Remote Control Unit SVT-RM10)





Supplied Accessories:	AC power cord (1) Operation manual (1)
Optional Accessory:	Remote control unit SVT-RM10 TLV parts kit TPK-953P

Specifications

General

Tape format:	VHS
Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	18 W
Operating temperature:	5˚C to 40˚C (41˚F to 104˚F)
Operating humidity:	Less than 80%
Dimensions:	240 (W) × 96.5 (H) × 333 (D) mm (9 1/2 × 3 7/8 × 13 1/8 inches)
Mass:	Approx. 3.8 kg (8 lb 6 oz)
Tape speed:	23.39 mm/sec (3-hour mode)
Recording/playback time:	3, 12, 24 hours (with an E-180 tape)
Alarm recording speed:	3-hour mode
Alarm recording duration:	20 s, 40 s, 1 m, 2 m, 3 m, 5 m, CC*1, TRIG
Fast forward/rewind time:	Approx. 2.5 minutes (with an E-180 tape)

Video

Recording system:	Rotary four-head helical scanning system
Input:	BNC : 1.0 Vp-p, 75 Ω, unbalanced
Output:	BNC : 1.0 Vp-p, 75 Ω, unbalanced
Horizontal resolution:	Colour mode : More than 240 TV lines Black & White mode : More than 320 TV lines
Signal-to-noise:	43 dB

Audio

Audio recording system:	Monaural
Audio recording mode:	3, 12 and 24-hour mode
Input:	–7.8 dBu, 47 kΩ (phono jack)
Output:	–7.8 dBu, 600 Ω (phono jack)
Microphone input:	–60 dBu, 600 Ω (ø3.5 mm mini jack)
Distortion:	Less than 4%
Audio signal-to-noise:	42 dB

Others

Alarm input:	Low level
Alarm output:	+5 V, 5.7 kΩ (Low active)
Switch output:	+5 V, 5.7 kΩ (Low active)
Tape end output:	+5 V, 5.7 kΩ (Low active)
Warning output:	+5 V, 5.7 kΩ (Low active)
External timer input:	Low level
Remote/Tally:	Stereo mini pin
AC input:	3-pin inlet

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*1 Duration of alarm recording continues for as long as alarm input remains active.
0 dBu = 0.775 Vrms

6-2. Time lapse video recorders accesories

SVT-RM10

Remote Control Unit

•Designed to remotely control all SVT VCRs •Provides wired remote control operation for REC/PLAY/STOP/REW/FF/REVPLAY/ PAUSE •MENU button and REC/PLAY SPEED button are also available •Length of cable: 2.4 m

REC
MENU
SHIFT
REC/PLAY SPEED
REW
PLAY
FF
REV PLAY
STOP
PAUSE
SONY
REMOTE CONTROL UNIT SVT-RM10

SVT-RS1A

RS-232C Interface Board

•When installed in the SVT-L230P, SVT-5050P, SVT-S3050P and SVT-1000P, this board allows these recorders to be remotely controlled from computers •Connectable with common RS-232C cable (male type) •REC CHECK function is available

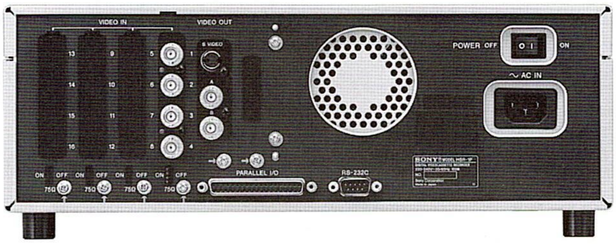
7-1. Digital surveillance recorder

HSR-1P

Digital Surveillance Recorder

•Hybrid configuration of HDD and DV tape drive •Four alternative quality modes: Super, High ,Middle and Low modes •Excellent picture quality provided by super mode with a horizontal resolution of more than 500 TV lines •Large storage capacity(more than 60 GB) and long recording time by using DV cassette tape(270-minute tape) as a storage medium •High refresh rate for recording of each camera •High reliability on tape transport mechanism and heads offered by the hybrid configuration of HDD and DV tape drive. •Compact body which matches that of a 14-inch monitor •Compact storage medium which requires less space •Up to 16 camera inputs provided by installing optional HSRA-11 •Built-in duplex multiplexing capability which allows recording and monitoring of up to 16 camera inputs independently. •A variety of monitoring patterns •Two monitoring outputs for simultaneous playback on the first monitor and monitoring on the second monitor •Five preset recording modes to be flexibly combined with picture quality mode, tape length, recording time, number of camera inputs and the recording cycle of each camera. •Flexible camera assignment •RS-232C interface for PC control •Freely configurable 37-pin parallel port •Flexibility in alarm mode •Continuous recording function without breaks even while changing or rewinding the tape •Sophisticated security functions •Water mark •Intelligent search functions: time/date search, alarm search, specific user data search and noiseless picture search •Pre Alarm recording capability for event recording •Power On recording capability •Frame recording in hyper mode

SONY
DIGITAL TIMELAPSE



Supplied Accessories:	AC power cord (1) Operation manual (1)
Optional Accessories:	HSRA-11 (Input Board) SVRM-100A (Remote Control Unit)

Specifications

General

Mass:	10 kg (22 lb 1 oz)
Dimensions:	355 (W) × 125 (H) × 410 (D) mm (14 × 5 × 16 1/4 inches)
Power requirements:	AC 220 V ~ 240 V, 50/60 Hz
Power consumption:	80 W (without options) 115 W (with full options)
Operating temperature:	5°C ~ 40 °C (41 °F ~ 104°F)
Operating humidity:	Less than 80 %
Usable tape:	DV[1] or DVCAM[2] cassette tape (standard size, mini size)
HDD capacity:	More than 4.3 GB

System

Video signal:	CCIR standard, PAL colour
Recording system:	Rotary two-head helical scanning system Digital components
Quantization:	8-bit
Sampling frequency:	13.5 MHz (4:2:0 components)
Recording/Playback time:	Maximum 9999 hours (Approx. 400 days)
Fast forward/Rewind time:	Less than 3 min. (with a DV270 tape)

Video

Input:	VBS, VS (BNC type): 1.0 Vp-p, 75 Ω, unbalanced
Output:	VBS (BNC type): 1.0 Vp-p, 75 Ω, unbalanced S-VIDEO (DIN 4-pin): Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, 75 Ω, at burst level
Quality mode:	SUPER, HIGH, MIDDLE and LOW mode (selectable) (Field-by-field recording) HYPER mode (Frame-by-frame recording with a trigger signal)
Horizontal resolution:	More than 500 TV lines (HYPER and SUPER mode)
Signal-to-noise ratio:	More than 48 dB

Built-in Multiplexer

Input:	4 inputs (up to 16 inputs with optional boards)
Output:	2 outputs
Split screen display:	9 patterns

Connectors

Parallel input/output:	D-SUB 37-pin (1) Input: 24 terminals to be freely assigned (Alarm, Clock set, Series rec, Alarm cancel, etc.) Output: 8 terminals to be freely assigned (Auto off, Tape end, Series rec, Rec tally, ect.) Power output: +12 V (max 100 mA)
Control S:	Stereo mini (1)

[1] The recorded tape by the HSR-1P cannot be played back on DV equipment.

[2] A DVCAM 184-minute tape can be used with the HSR-1P. It has the same storage capacity as that of a DV 270-minute tape.

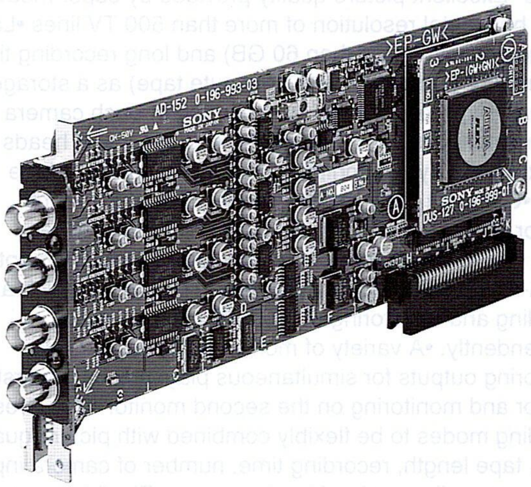
7-2. Digital surveillance recorder accessories

HSRA-11

Input Board for HSR-1P

When installed in the HSR-1P, this board enables signals from camera to be input to the unit.

Connector	Input: BNC × 4



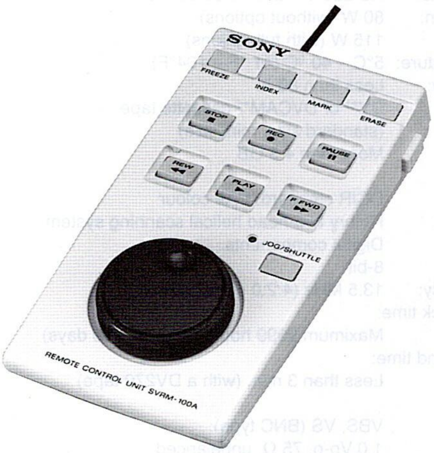
SVRM-100A

Remote Control Unit for the HSR-1P

•Provides wired remote control operation for STOP/REC/PAUSE/REW/PLAY/FFWD •JOG/SHUTTLE operation

Specifications

Power requirements:	DC 5 V (supplied from the HSR-1P)
Power consumption:	40 mW
Remote control:	Stereo mini plug
Control signal:	Control S
Dimensions:	90 (W) × 39 (H) × 182 (D) mm (3 ⅝ × 1 9⁄16 × 7 ¼ inches)
Mass:	250 g (8.8 lb)



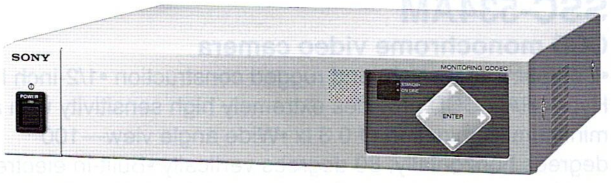
SONY
FREEZE
INDEX
MARK
ERASE
STOP
REC
PAUSE
REW
PLAY
F FWD
JOG/SHUTTLE
REMOTE CONTROL UNIT SVRM-100A

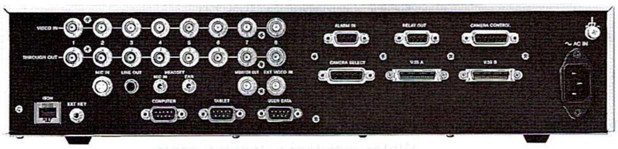
PMS-500P/400P

Monitoring codecs

•PMS-500P and PMS-400P Comparison

	Video		Voice		Control	Data
	Send	Receive	Send	Receive	Send	Receive
PMS-500P	YES	YES	YES	YES	YES	YES
PMS-400P	YES	NO	YES	YES	YES	YES





(Both PMS-500P and PMS-400P)
•Transmission of smooth and clear video at a maximum of 15 frames per second via an ISDN line •Selectable video mode (Fast/Normal/Fine) in monitoring •Accepts 8 camera inputs which are selectable from a control centre or local terminals •I/O port to control camera pan/tilt and zoom lens •Relay output port to control external devices (i.e. door, light) •Transmission and receiving capability of audio which allows conversation between two sites •When an alarm signal is input to a terminal, it automatically activates the control centre to switch the monitor to watch that terminal •Easy connection by connecting to an ISDN modular jack •Compatible with a wide range of cameras, monitors, and TLV equipment •Password protection •RS-232C serial interface for PC control •Remote diagnostics

Supplied Accessories:	AC power cord (1) Operation manual (1) Tablet operation seals (1)

Specifications

Video

Coding:	H.261 (ITU-T recommendation)
Operating bandwidth:	Selection of 12 bandwidths ranging from 56 kbps to 384 kbps
Frame rate:	Max. 15 frames per second
Picture elements:	CIF: Luminance (Y): 352 pixels × 288 lines Colour difference (B-Y/R-Y): 176 pixels × 144 lines
Colour system:	PAL (mutually connectable with NTSC)
P in P:	PMS-500P only
Input	
Video In/Ext. Video In:	1.0 Vp-p, 75 Ω, sync negative (BNC type)
Video Out/Through Out:	1.0 Vp-p, 75 Ω, sync negative (BNC type)
Monitor Out:	1.0 Vp-p, 75 Ω, sync negative (BNC type)
Input connectors	
Video In:	PMS-500P: 8 PMS-400P: 8
Ext. Video In:	PMS-500P: 1 PMS-400P: 1
Video Out:	PMS-500P: 1 PMS-400P: –
Monitor Out:	PMS-500P: 1 PMS-400P: 1

Audio

Coding:	G.728 (ITU-T recommendation)
Transfer rate:	16 kbps
Bandwidth:	3.4 kHz
Input	
Mic In:	–60 dBu/600 Ω, balanced (4-pin round connector)
Headphone Mic In:	–60 dBu/4.7 kΩ, unbalanced (minijack)
Line Out:	Variable, 4.7 kΩ (phono)
Headphone SP Out:	Variable, 72 Ω (minijack)
Input connectors	
Mic In:	PMS-500P: 1 PMS-400P: 1
Headphone Mic In:	PMS-500P: 1 PMS-400P: 1
Line Out:	PMS-500P: 1 PMS-400P: 1
Headphone SP Out:	PMS-500P: 1 PMS-400P: 1

Control procedure coding standards

H.242 System for Establishing Communication
H.320 Overall System
H.230 Control and Indication Signal
H.221 Framing and Signaling Structure

Communications interface

Network

Multiplexing:	Video, audio, data
Transmission rate:	ISDN interface, 1B/2B V35 with RS-366 (56 k - 384 k)
Network connectors	
ISDN BRI:	RJ45
V35 with RS-366:	36-pin half-pitch connector (2)
Computer control port	
Interface:	RS-232C
Baud rate:	1200/2400/4800/9600/19200/38400 bps
Tablet input	
Interface:	RS-232C
Baud rate:	9600 bps

User data I/O

I/O parallel

Alarm input:	D-sub 9-pin TTL input, pull-up resistance 10 kΩ
Relay control:	D-sub 9-pin Output mode : Open collector (40 V, 40 mA) Input mode : TTL input, pull-up resistance 10 kΩ
Camera control:	Output mode : Open collector (40 V, 40 mA) Input mode : TTL input, pull-up resistance 10 kΩ
Remote control unit:	Mini jack, SIRCS format
I/O serial:	D-sub 9-pin
Baud rate:	1200/2400/4800/9600/19200/38400 bps
Interface:	RS-232C or RS-422 (1) RS-232C or RS-485 (1) RS-232C (1)
RS-232C:	PMS-500P: 3 (switchable with RS-422/485) PMS-400P: 3 (switchable with RS-422/485)
Alarm input:	PMS-500P: 8 PMS-400P: 8
Relay output:	PMS-500P: 8 PMS-400P: 8
Camera P I/O:	PMS-500P: 12 PMS-400P: 12
SIRCS input:	PMS-500P: 1 PMS-400P: 1
RS-485:	PMS-500P: (1) PMS-400P: (1)
Operation keys:	PMS-500P: Main unit keys, Remote control (option), Tablet (option) PMS-400P: Main unit keys, Remote control (option), Tablet (option)

Menu display memory

Screen size:	Max. 24 characters × 12 lines (288 characters)
Character font:	24 × 32 pixels

General

Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	0.35 A
Operating temperature:	0˚C to 40˚C
Operating humidity:	20% to 80% (no condensation)
Storage temperature:	–20˚C to 55˚C
Storage humidity:	20% to 75% (no condensation)
Mass:	7.0 kg
Dimensions:	424 (W) × 88 (H) × 356 (D) mm (16 3/4 × 3 1/2 × 14 1/8 inches)

SSC-534AM

CCD monochrome video camera

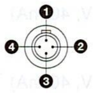
•Compact, lightweight and rugged construction •1/2-inch IT Hyper HAD CCD provides extremely high sensitivity with a minimum illumination of 0.3 lx •Wide angle view—100 degrees horizontally, 80 degrees vertically •Built-in electret condenser microphone •Only single 4-pin Multiple Cable required between the SSC-534AM and the SSM-504AM/724AMR to transmit video and audio signals, together with DC power

SONY
Hyper HAD

Supplied accessories:	Camera bracket Rubber cap Adhesive Self-fusing tapes (2) 3mm Allen key 4mm washers (4) Angle adjusting screws (4) 5mm hexagon head bolts (5) 5mm washers (5) Rubber nuts (5) Operating instruction manual
Optional accessories:	Camera cable VK-110A/120A (10/20 m) Water-resistant extension cable VK-305 (5 m) Water-resistant camera cable VK-310A/320A (10/20 m)

Specifications

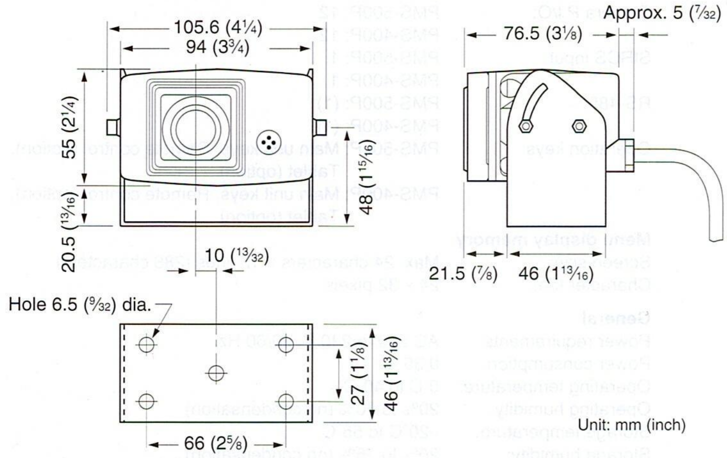
Image device:	1/2-inch Interline Transfer Hyper HAD CCD
Picture elements:	500(H) × 582(V)
Sensing area:	6.3 mm × 4.7 mm
Lens:	f=3.0 mm, F1.6 with auto-iris
Video signal system:	CCIR standard
Scanning system:	625 lines, 2:1 interlace
Sync system:	Internal
Horizontal resolution:	380 TV lines
Minimum illumination:	0.3 lx
Signal-to-noise ratio:	50 dB (AGC OFF)
Video/audio output:	4-pin Multi-connector



❶ DC input
❷ Video output: 1.0 Vp-p, 75 Ω, sync negative
❸ Ground
❹ Audio output: -5 dBu (436 mVrms), less than 10 kΩ, unbalanced

Power requirements:	DC 12 V
Power consumption:	1.2 W (at DC 12 V)
Operating temperatures:	-20 to 70°C (-4 to 158°F)
Storage temperatures:	-30 to 85°C (-22 to 185°F)
Mass:	550 g (1 lb 3 oz)

Dimensions



9-2. Automotive monochrome video monitors

SSM-504AM/724AMR

5-inch/7-inch monochrome monitor

•Offers bright, clear and high-contrast pictures •Compact, lightweight and rugged construction •Built-in speaker •Day/Night switch adjusts picture brightness for normal or low-light conditions •Automatic back-up operation •Only a single 4-pin Multiple Cable required between the SSC-534AM and the SSM-504AM/724AMR to transmit video and audio signals, together with DC power

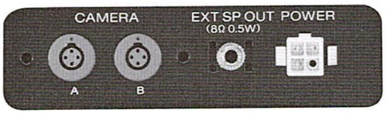
SSM-724AMR

SSM-504AM

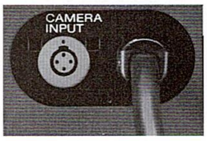
Exclusive features for SSM-724AMR

•Semi-flat square/non-glare CRT •Audio output connection for an optional external speaker •Dual camera inputs •Alternative power supply mode (DC 12/24V)

Supplied accessories: Mounting bracket
Screws (4)
Bolts (4)
Washers (12)
Spring washers (8)
Nuts (4)
Power supply cable
Bracket holder
Operating instruction manual
Montor scale (SSM-724AMR only)
Optional accessory: Monitor Hood WU-500AM (for SSM-504AM)
Monitor Hood WU-700AM (for SSM-724AMR)


CAMERA
EXT SP OUT
(8Ω 0.5W)
POWER
A
B

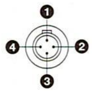
SSM-724AMR


CAMERA INPUT

SSM-504AM

Specifications

Video signal system: CCIR standard
Picture tube: 5-inch/7-inch B/W measured diagonally 90 degree deflection
Speaker: ø50mm (2-inch) Impedance 8Ω,
SSM-504AM: 0.3W output (max.),
SSM-724AMR: 0.5W OUTPUT (max.)
Video/audio input: 4-pin Multi-connector

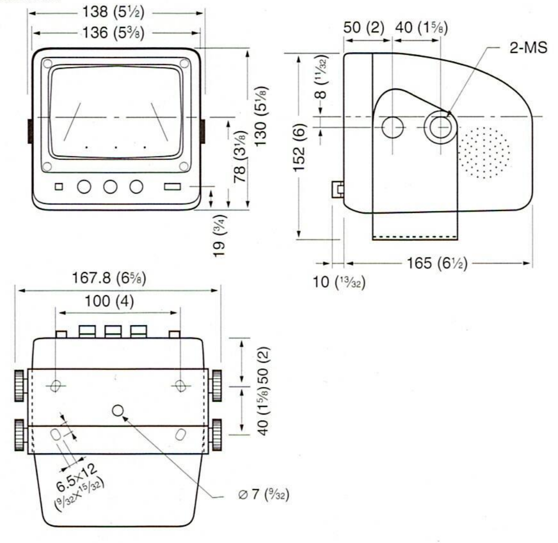


❶ 12V DC output
❷ Video input: 1.0Vp-p, 75Ω, sync negative
❸ Ground
❹ Audio input: -5dBu (436mVrms) more than 30kΩ, unbalanced

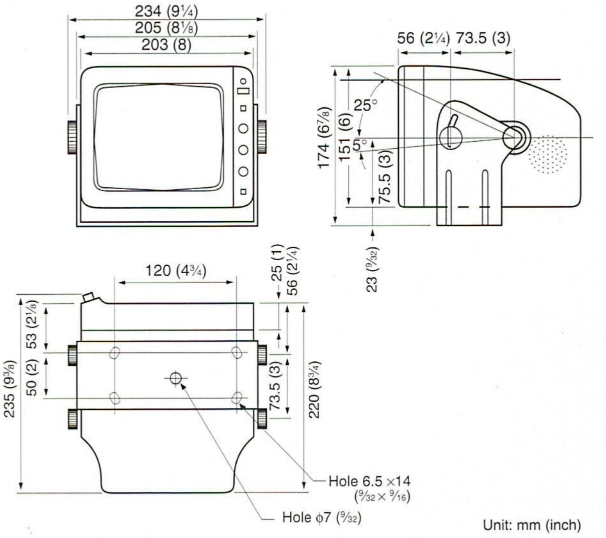
Output: External speaker jack (mini jack)
(SSM-724AMR only), impedance 8Ω
Power requirements: SSM-504AM: DC 12V
SSM-724AMR: DC 12V or 24V
Power consumption: SSM-504AM: 8W
SSM-724AMR: 23W
Operating temperature: -15 to 60°C (5 to 140°F)
Storage temperature: -25 to 80°C (-13 to 185°F)
Mass: SSM-504AM: Approx. 2.5kg (5 lb 8 oz)
SSM-724AMR: Approx. 3.2kg (7 lb)

Dimensions

SSM-504AM


138 (5½)
136 (5⅜)
130 (5⅛)
78 (3⅛)
19 (¾)
50 (2)
40 (1⅝)
2-MS
152 (6)
8 (11/32)
165 (6½)
10 (13/32)
167.8 (6⅝)
100 (4)
50 (2)
40 (1⅝)
6.5×12 (9/32×15/32)
⌀7 (9/32)

SSM-724MR


234 (9¼)
205 (8⅛)
203 (8)
56 (2¼)
73.5 (3)
174 (6⅞)
151 (6)
25°
5°
75.5 (3)
23 (29/32)
120 (4¾)
25 (1)
56 (2¼)
235 (9¼)
53 (2⅛)
50 (2)
73.5 (3)
220 (8¾)
Hole 6.5×14 (9/32×9/16)
Hole ϕ7 (9/32)

Unit: mm (inch)

SECTION 8 VIDEOCONFERENCING SYSTEM

1. Videoconferencing system
PCS-5100P....................286
PCS-3000P....................288
PCB-500P....................290
PCB-600P....................291

2. Videoconferencing system accessories....................292

PCS-5100P

TriniCom 5100 *Plus* Rollabout package

•Designed for middle to small group meeting (2 to 6 persons per location) •Complies with the ITU-T H.261/H.263 standard for Video Coding, and the G.722/711/728 for Audio Coding •Either ISDN BRI, a switched line, or a dedicated digital network (for 56 to 384kbps) can be used for communication interface •Enhanced video quality •Smooth motion video achieved by the frame rate of 30fps •4-site multipoint capability for holding videoconferences involving up to four locations •Drop call capability enables the participants to leave the meeting at any time •Wireless remote commander and on-screen menu icons assure easy operation •High-resolution 1/3-inch CCD camera provides excellent picture reproduction •Auto-tracking camera with pan/tilt/zoom capability to detect motion and follow an individual speaker •Supports H.281 Far End Camera Control standard enabling control of the camera of any vendor's CODEC (CODEC supporting H.281) •Rollabout processor combines an ITU-T standard video/audio CODEC, system controller, communication network interface and echo canceller all into one unit •Supports the industry standard PCMCIA Type 2 PC Card format allowing transfer of JPEG images between the Trinicom and the PC •A second monitor can be added to display documents and graphics with the optional PCS-G510P Dual Monitor Board •High-resolution monochrome documents and full-colour still video pictures can be transmitted and displayed •With Automatic 4 x CIF Image Transmissions the presenter is able to concentrate on their presentation as this enables 4 x CIF images to be sent every few seconds until the presenter stops the transmission (When connected at 384 kbps) •The optional PCS-T500 Drawing Tablet for pointing or drawing on a document or still video •Automatic Lip Sync on/off function •Automatic/manual dialing function

Basic system configuration

•PCS-5100P Rollabout Package - Camera unit, Rollabout processor, Audio unit, Remote commander

Supplied accessories:	S-video cable (1 m) Audio unit cable (10 m) Camera unit cable (2 m) IR repeater ISDN cable (3 m) AC power cord (for Rollabout processor, 2.5 m) Operation manual
Optional accessories:	PCS-A510 Audio unit (For additional purchase) PCS-A520EK External microphone kit PCS-F500 Cabinet (for 29 inch monitor) PCS-F510 Cabinet (for 34 inch monitor) PCS-G510P Dual monitor board PCS-R500 Remote commander (For additional purchase) PCS-R510 Key commander PCS-T500 Drawing tablet PCS-I500 V.35 Board PCS-I510 X.21 Board PCS-I520 RS-449 Board PCS-MC10 Memory card PCS-K21 Printer cable PCS-K32 V.35 Cable PCS-K40 RS-449 Cable PCS-K60 S-video Cable PCS-K70 X.21 Cable VID-P110 Video presentation stand VID-P50 Video presentation stand

Specifications

Communication Protocols

H. 221 (Framing and Signaling Structure)
H. 230 (Control and Indication Signals)
H. 242 (System for Establishing Communication)
H. 243 (The Basic MCU Procedure for Communication)
H. 320 (Overall System)
H. 281 (Far-end Camera Control)
ISO 13871 BONDING, Mode 1

Motion Video

Operating bandwidth:	56 kbps (64 kbps) to 384 kbps in 56 k or 64 kbps increments	
Coding:	H. 261 (ITU-T Standard) H. 263 (ITU-T Standard) (56 to 128 kbps with H. 263)	
Picture elements:	CIF	352 pixel 288 lines
	QCIF	176 pixel 144 lines
Video signal system	PAL (As complied with H. 261/H. 263 standard, PCS-5100 can communicate directly with PCS-5100 (NTSC system) and vice versa.)	

Audio

Bandwidth and coding:	G.722	7.0 kHz at 48 k or 56 kbps
	G.711	3.4 kHz at 56 k or 64 kbps
	G.728	3.4 kHz at 16 kbps
Cable length:	10 m (From Rollabout Processor to Audio Unit)	
Expandability:	Max. three Audio Unit can be allowed to use simultaneously.	

Camera

Camera:	1/3" CCD	
Preset:	up to 6 position (Pan/Tilt/Zoom)	
Picture elements:	752 pixels × 582 lines	
Focal length:	5.4~64.8 mm	
Focus:	Auto/Manual switchable	
Iris:	Auto	
Zoom ratio:	12 ×	
Output signal:	S-Video (1), Composite (1)	
Pan control:	±100°, Motor-driven	
Tilt control:	±25°, Motor-driven	
Resolution:	More than 450 TV lines	
S/N ratio:	45 dB	
Far-end control:	Zoom	Tele/Wide
	Focus:	Auto/Manual (far, near)
	Pan:	Right/Left
	Tilt:	Up/Down
Others:	Auto Tracking, Auto Zooming Back Light Shooting, Brightness Control	

Graphics

Resolution:	704 pixels × 576 lines
Input signal:	S-Video (2), Composite (1) With PCS-G510P, RGB(1) is added.
Compression method:	JPEG (Joint Photograph Expert Group), H.261 Annex D (4 × CIF)
Transmitting time:	Approx.10 s at line rate 112 k to 384 kbps
Storage Capacity:	Max. 30 pages (Color) in total for both graphics and document

Document

Resolution (Processing):	200 dpi (8 dots/mm) (1728 x 2376 in A4 paper)	
Resolution (Display):	704 pixels × 576 lines with 16 grey scale	
Input signal:	SCSI interfaced to Document Scanner (HP Scan Jet 6100C)	
Paper size:	A4	
Output signal:	Centronics interfaced to Laser-beam Printer (HP Laser jet 6L)	
Printing time:	approx. 1 min. /A4 Black and White with 16 grey scale	
Display scanning:	15.625 kHz (black-and-white with 16 grey-scale)	
Compression method:	MMR (Modified Modified READ)	
Transmitting time:	Approx. 5 sec at line rate 112 k to 384 kbps	
Scanning time:	Approx. 8 sec at A4 paper	
Manipulations:	Rotation	90° step
	Size	× 1, × 2, × 4
	Scroll	Vertical up and down Horizontal right and left
Storage capacity:	Max. 30 pages(Colour) in total for both document and graphics	

Picture in Picture

Sub screen size:	1/9
Position:	One of four corners
Motion video mode:	(Main) Motion Video of remote site (Sub) Motion Video of local site
Document mode:	(Main) Document (Sub) Motion Video of remote site
Graphics mode:	(Main) Graphics (Sub) Motion Video of remote site

Pointing and Drawing

Input device:		RS-232C interfaced Drawing Tablet (PCS-T500) Electromagnetic Tablet and Pen system
Pointer:		Finger Mark
Line thickness:		3 size
Eraser size:		1 size plus All
Colour:		White/Red/Green for Graphics Black/White for Document
Transmission		
Multiplexing:		Video, Audio, Data
Frame format:		ITU-T H.221
Interface:		ISDN (BRI) × 3, X.21 × 2* V.35 × 2 with RS-366* RS-449x1* I-Mux*
Rate:	ISDN	56/64 kbps to 384 kbps in 56/64 kbps increments
	V.35*	56/64 kbps to 384 kbps in 56/64 kbps increments
	Dual V.35*	56 kbps × 2, 64 kbps × 2
	RS-449*	56/64 k~384 kbps in 56/64 kbps increments
	X.21*	56/64 k~384 kbps in 56/64 kbps increments
	Dual X.21*	56 kbps × 2, 64 kbps × 2
	I-Mux*	168 k~384 kbps
Data Port		
RS-232C:	Aux Control Port	(1), 9.6kbps, /Stop bit 2/Non parity/Data bit 8
	User Data Port	(1), 9.6kbps/38.4 kbps, /Stop bit 1/Non parity/Data bit 8
Lip Synchronization		
System		Automatic Manual ON/OFF
Echo Cancellation		
Bandwidth:		7 kHz
Diagnostics		
Local operation:		Remote Commander or Data Terminal
Remote operation:		Data terminal via Modem through analogue telephone network Rollabout via ISDN or digital network
Remote Commander		
Signal format:		Infrared SIRCS
Key:		Direction Pad and Exec. Key Power On and Mic Mute
Power:		AA/LR6/AM3 (N) Alkaline52 battery
General		
Operating temperature		5°C to 35°C (41°F to 94°F)
Operating humidity		20% to 80%
Storage temperature		–20°C to 60°C (-4°F to 140°F)
Storage humidity		20% to 80%
Power requirement		AC 220 to 240V, 50/60Hz
Power consumption		0.5A
Dimensions:		
	Rollabout Processor:	190 (W) × 340 (H) × 310 (D) mm ($7^{1}/_{2}$ × $13^{1}/_{2}$ × $12^{1}/_{4}$ inches)
	Audio Unit:	276 (W) × 83 (H) × 185 (D) mm ($10^{7}/_{8}$ × $3^{3}/_{8}$ × $7^{3}/_{8}$ inches)
	Camera Unit:	142 (W) × 109 (H) × 164 (D) mm ($5^{5}/_{8}$ × $4^{3}/_{8}$ × $6^{1}/_{2}$ inches)
	Remote Commander:	42 (W) × 30 (H) × 182 (D) mm ($1^{11}/_{16}$ × $1^{3}/_{16}$ × $7^{1}/_{4}$ inches)
Mass:	Rollabout Processor:	9.0 kg (19 lb 13 oz)
	Audio Unit:	1.0 kg (2 lb 3 oz)
	Camera Unit:	1.2 kg (2 lb 10 oz)
	Remote Commander:	0.13 kg (4.6 oz)

NOTE: *: An optional board is required.

* The above photograph is an example of the TriniCom 5100 *Plus* system, including the PCS-5100P.

PCS-3000P

TriniCom 3000 *Plus* Rollabout Package

•Easy to operate •Simple operation achieved with well-selected functions •3-site multipoint capability •Drop call capability enables the participants to leave the meeting at any time •Designed for a small-group meeting •Upgradeable up to 256 kbps and 4-site mutipoint operation •Complies with the ITU-T H.261/H.263 standard for Video Coding, and the G.722/711/728 for Audio Coding •Supports H.281 Far End Camera Control standard enabling control of the camera of any vendor's CODEC (CODEC supporting H.281) •With Automatic 4 x CIF Image Transmissions the presenter is able to concentrate on their presentation as this enables 4 x CIF images to be sent every few seconds until the presenter stops the transmission (When connected at 384 kbps)

* This above photograph is an example of the TriniCom 3000 system, including the PCS-3000P.
* The shape of the above camera is slightly different from the actual camera unit of the PCS-3000P.

PCS-3000P package configuration:	Rollabout Processor, Camera Unit, Microphone, Remote Commander
Supplied Accessories:	S-video cable (1.3 m) Audio cable (1 m) Camera unit cable (2 m) IR repeater (1) ISDN cable (3 m) AC power cord (2.5 m) Operation manual
Optional accessories:	PCS-A300 Microphone (for additional purchase) PCS-F500 Cabinet (for 29-inch monitor) PCS-F510 Cabinet (for 34-inch monitor) PCS-R500 Remote Commander Unit (for additional purchase) PCS-R510 Key Commander PCS-T300 Tablet PCS-I300 BRI Board (For 4B and 4-site mutipoint) PCS-I500 V.35 Board PCS-K32 VC.35 Cable PCS-K60 S-video Cable VID-P110 Video presentation stand VID-P50 Video presentation stand

Specifications

General

Power requirements	AC 220/240V, 50/60Hz
Power consumption:	0.4 A
Operating Temperature:	5°C to 35°C (41° to 94°F)
Operating humidity:	20% to 80%
Storage temperature:	–20° to 60°C (–4° to 140° F)
Storage humidity:	20% to 80%

Communication Protocols

H. 221 (Framing and Signaling Structure)
H. 230 (Control and Indication Signals)
H. 242 (System for Establishing Communication)
H. 243 (The Basic MCU Procedure for Communication)
H. 320 (Overall System)
H. 281 (Far-end Camera Control)

Motion Video

Operating bandwidth:	56 kbps (64 kbps) to 128 kbps in 56 kbps or 64 kbps increments (With the PCS-I300 installed, 56 kbps to 256 kbps upto 128 kbps with H. 263)
Coding:	H. 261 (ITU-T standard) H. 263 (ITU-T standard)
Picture elements:	CIF: 352 pixels x 288 lines QCIF:176 pixels x 144 lines
Video signal system:	PAL standard (As complies with H. 261/H. 263 standard, PCS-3000 NTSC model can communicate directly with PCS-3000P and vice-versa)
Frame rate:	15 fps
Input signals:	S-video (1), Composite (1); used in common with input for graphics
Output signals:	S-video (1), Composite (1)

Audio

Bandwidth and coding:	G.722	7.0 kHz at 48 kbps or 56 kbps
	G.711	3.4 kHz at 56 kbps or 64 kbps
	G.728	3.4 kHz at 16 kbps

Cable length:	8 m (from rollabout processor to audio mics)
Expandability:	Maximum of 2 microphone (PCS-A300) can be used simultaneously

Camera

Image device:	1/3-inch color CCD (digital)
Picture elements:	752 pixels × 582 lines
Preset:	Up to 6 positions (Pan/tilt/zoom)
Focal length:	5.4 mm to 64.8 mm
Focus:	Audo/manual switchable
Iris:	Auto
Zoom ratio:	12×
Output signal:	S-video (1), Composite (1)
Pan control:	±100°, motor-driven
Tilt control:	±25° motor-driven
Resolution:	450 TV lines
Signal-to-noise ratio:	45dB
Far-end control:	Zoom (tele/wide), focus (auto/manual), pan (right/left), tilt (up/down)
Others:	Auto Zooming, Audo-Tracking, Backlight shooting, Brightness control

Graphics

Resolution:	704 pixels × 576 lines
Input signals:	S-video (1), Composite (1)
Compression method:	H.261 Annex D (CIF × 4)

Picture-in-Picture

Sub screen size:	1/9
Position:	One of four corners
Motion video mode:	Main screen: motion video of remote site Sub screen: motion video of local site

Transmission

Multiplexing:	Video, audio, data
Frame format:	ITU-T H.221
Interface:	ISDN (BRI) (1) *With the optional PCS-I300: Another ISDN (BRI) (1) can be added *With the optional PCS-I500: V.35 x2 (with RS-366) can be added

Rate:	ISDN: 56/64 kbps to 128 kbps in 56/64 kbps increments *With the optional PCS-I300: 56/64kbps to 256kbps in 56/64 kbps increments *With the optional PCS-I500: V.35: 56/64 kbps to 384 kbps in 56/64 kbps increments Dual V.35: 56/64 kbps x 2, 64 kbps x 2
T-120 Data Port	
RS-232C:	9.6 kbps/ 38.4 kbps
Auxiliary Data Port	
RS-232C:	9.6 kbps
Lip Synchronization	
Setting:	Auto or Manual ON/OFF
Echo Cancellation	
Audio bandwidth:	7 kHz
Diagnostics	
Local operation:	Remote Commander unit or data terminal
Remote operation:	Data terminal via modem through analogue telephone network Rollabout via ISDN or digital network
Remote Commander	
Signal format:	Infrared Control S
Keys:	Direction pad with Execute, Power On, Mic Mute Keys
Power:	AA/LR6/AM3 (N) Alkaline battery
Dimensions and Mass	
PCS-3000P	
Rollabout processor:	190 (W) × 340 (H) × 310 (D) mm ($7\frac{1}{2} \times 13\frac{1}{2} \times 12\frac{1}{4}$ inches)
Microphone:	68 (W) × 15 (H) × 90 (D) mm ($2\frac{3}{4} \times \frac{19}{32} \times 3\frac{5}{8}$ inches)
Camera Unit:	142 (W) × 109 (H) × 164 (D) mm ($5\frac{5}{8} \times 4\frac{3}{8} \times 6\frac{1}{2}$ inches)
Remote Commander:	42 (W) × 30 (H) × 182 (D) mm ($1\frac{11}{16} \times 1\frac{3}{16} \times 7\frac{1}{4}$ inches)
PCS-3000P	
Rollabout processor:	7.0 kg (15 lb 6.9 oz)
Microphone:	0.2 kg (7.1 oz)
Camera Unit:	1.2 kg (2 lb 10.4oz)
Remote Commander:	0.13 kg (4.6 oz)

PCB-500P

PC Conference Kit

•Designed for personal data communication on PC environment •Employs high quality video camera with excellent picture quality and 60° viewing angle •Complies with the ITU-T H.320 standard for video coding •Complies with H. 323 standards for communication via LAN •Supports H.281 Far End Camera Control standard enabling control of the camera of any vendor's products (Products supporting H.281) •Video quality adjustment in 31 steps •Scaleable video windows •Picture-in-picture and picture-out-picture function •Hands-free operation via the camera unit's built-in microphone •A supplied handset •Lip sync function and echo canceller •Plug-and-play capability for easy installation •A simple yet comprehensive icon menu for easy and intuitive operation •PC phone function •Telephone directory function •Supports T.120 •Application software sharing on either PC •File transfer capability •White-board capability •Supports NetMeeting™ •Internet Access capable

PCB-500P Kit:	PC conference board Camera unit Handset PC Conference software
Supplied accessories:	ISDN cable (1.8m x1) Cable for handset Operating instructions Camera cable Camera stand Installation manual

Specifications

General

Operating temperature:	0°C to 40°C (32°F to 140°F)
Operating humidity:	20% to 80% (based on room temperature of 25°C (77°F))
Preserving temperature:	-25°C to 80 °C (-13°F to 176°F)
Preserving humidity:	10% to 80% (without condensation)
Power requirement:	DC 5V
Power consumption:	0.6 A
Dimensions:	PC conference board: 126 (W) × 22 (H) × 176 (D) mm (5 × $\frac{7}{8}$ ×7 inches) Camera unit: 48.6 (W) × 34.9 (H) × 90 (D) mm ($1\frac{15}{16}$ × $1\frac{3}{8}$ × $3\frac{5}{8}$ inches) Handset: 45 (W) × 43 (H) × 205 (D) mm ($1\frac{13}{16}$ × $1\frac{3}{4}$ × $8\frac{1}{8}$ inches)
Mass:	PC conference board: 160 g (5.6 oz) Camera unit: 110 g (3.0 oz) Handset: 120 g (4.2 oz)

Transmission

Transfer rate:	ISDN 56 k to 128 kbps (Max. 384 kbps using optional Promptus board*) LAN up to 768 kbps (requires LAN board) *Will be available soon

Video

Compression:	ITU-T standard H.261 compatible
Transmitted resolution:	FCIF: 352 × 288 pixels up to 15 frames/sec. QCIF: 176 × 144 pixels up to 30 frames/sec.
Video input:	Camera-1/Camera-2 inputs switchable via software NTSC/PAL auto detection
SVGA resolution:	All SVGA resolutions with 32 k or 64 k colours
Software-controlled features:	Contrast, hue, brightness and colour control Video quality adjustment Scaleable screen size (fixed aspect ratio 4:3)

Audio

Compression:	ITU-T standard: G.722 7kHz at 64kbps G.711 3.4kHz at 56kbps G.728 3.4kHz at 16kbps
Audio input:	Telephone handset supplied; built-in microphone in camera unit
Audio output:	Line-level output Sound Blaster card with multimedia speakers
Software-controlled features:	Volume control and mute Echo canceller

Camera

Image sensor:	1/4 inch CCD
Effective pixels:	270 k pixels (effective: 250k)
Lens:	f = 3.9mm/F1.8
Angle of view:	60 degrees
White balance:	Auto
Min. illumination:	9 lx.
Video out:	8 pin mini DIN, 1.0Vp-p composite
Power requirement:	DC 5V, 1.6W

PC System Requirements

Platform:	IBM PC or equivalent PCI bus and PCI VGA card that supports Direct Draw with minimum 2 Mbytes of memory
CPU:	Pentium 133 MHz for H. 320 ISDN Pentium 200 MHz for H. 323 LAN
OS:	Windows 95, Windows 98, Windows NT
Memory::	32 MB or more
Hard disk:	More than 30 MB
Monitor:	SVGA Monitor required

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* IBM is a trademark of IBM Corporation.
* Pentium is a trademark of Intel Corporation.
* Windows is a registered trademark of the Microsoft Corporation.
* FarSite is a trademark of Databeam Corporation.

PCB-600P

PC Conference Kit

•Designed for small group videoconference user who wants inexpensive videoconferencing system with data handling •Employs a highly efficient camera with excellent picture quality and performance •Complies with the ITU-T H.320 standard for video coding •Video output for a second monitor which can be added to display motion pictures •Video quality adjustment •Fully scaleable video window •Two composite video inputs •Picture-in-picture function •A compact and unique microphone design assures optimum voice pick-up •Full duplex Echo Canceller and Automatic Lip Sync functions •Plug-and-play for easy installation •Simple yet comprehensive menu icons make operation easy •Telephone directory function •Supports T.120 •Supports Databeam FarSite software •Application software can be shared on both PCs •Capable of transferring files •Capable of sharing interactive white-board

PCB-600P Kit:	PC conference board PC Conference software ('FarSite' included) Camera unit Microphone (with 5 m cable)
Supplied accessories:	Cable for audio adapter (0.14 m x1) Microphone extension cable (3 m) ISDN cable Camera cable (3 m) AC power adapter for camera unit IR remote commander for camera unit Conference software FarSite application software

Specifications

General

Operating temperature:	10°C to 35°C
Operating humidity:	20% to 90%
Preserving temperature:	–25°C to 90°C
Preserving humidity:	20% to 90%
Power requirement:	DC 5 V ±5%, 12 V ±5%
Power consumption:	2 A, 100 mA
Dimensions:	PC conference board: 126(W) × 22(H) × 176(D) mm (5 × $^7/_8$ × 7 inches) Camera unit: 84(W) × 69(H) × 142(D) mm (37 × $2^3/_4$ × $5^5/_8$ inches) Microphone: 37(W) × 15(H) × 54.5(D) mm ($1^1/_2$ × $^{19}/_{32}$ × $2^1/4$ inches)
Mass:	PC conference board:250 g (8 oz) Camera unit: 450 g (16 oz) Microphone: 88 g (3.1 oz)

Transmission

Transfer rate:	ISDN 56k to 128kbps (Max. 384kbps using optional Promptus board)

Video

Compression:	ITU-T standard H.261 compatible
Transmitted resolution:	FCIF: 352 x 288 pixels up to 15 frames/sec. QCIF: 176 x 144 pixels up to 30 frames/sec.
Video input:	Camera-1/Camera-2 inputs switchable via software, RCA pin jack, 1.0Vp-p composite NTSC/PAL auto detection
VGA resolution:	All VGA resolutions with 32k or 64k colours
Software-controlled features:	Contrast, hue, brightness and colour control Video quality adjustment Scaleable screen size (fixed aspect ratio 4:3)
Video output:	RCA pin jack, 1.0 Vp-p composite *NTSC/PAL automatically switchable depending on video formats connected to the input

Audio

Compression:	ITU-T standard: G.711 3.4 kHz at 56 kbps G.728 3.4 kHz at 16 kbps G.728 3.4 kHz at 16 kbps
Audio input:	Microphone/Line in 1 switchable Microphone: 620 mVrms, 3.3 kΩ for electret microphone Line in 1: 1 Vp-p, 0 dB, 20 kΩ, 0 dB to +24 dB in 6 dB step
Audio output:	Line out: 1.2 Vrms (0 dB, 40 Ω minimum), -10 dB to +18 dB in 0.5 dB steps
Software-controlled features:	Volume control and mute Echo canceller

Camera

Image sensor:	1/4 inch CCD
Pixels:	752 (h) x 585 (v)
Lens:	f = +4.5 to 13.5 mm /F2.3 to F4.1, 3x zoom, auto focus
Angle of view:	44 degrees (wide), 15 degrees (tele)
Auto exposure:	Electronic shutter
White balance:	Auto
Min. illumination:	16 lx (more than 50 IRE)
Video out:	RCA pin jack, 1.0Vp-p composite
Power requirement:	DC 7.5 V to 12 V, 5.6 W (max.)

2. Videoconferencing system accessories

PCS-A510

Audio unit for PCS-5100P

•Additional audio unit for the PCS-5100P
•Covers a total of five to six attendants in a conference

Supplied accessories:
Joint cable (mini DIN 8-pin
↔ mini DIN 8-pin, 3 m)

Bandwidth:	7.0 kHz
Power:	Supplied from the Rollabout processor (+12 V)
Mass:	1.0 kg (2 lb 3 oz)
Dimensions:	276 (W) × 83 (H) × 185 (D)mm (10⅞ × 3⅜ × 7⅜ inches)

PCS-A520EK

External Microphone Kit for PCS-5100P

•Additional microphone kit for the PCS-5100P •Includes one microphone, terminal box and eight meters multi cable to connect between the CODEC and the terminal •Terminal interfaces up to three microphones and one drawing tablet.

Supplied accessories:
Microphone (3 m cable)
Cable (for Rollabout Processor)
Operation Manual

Mass:	0.5 kg (1 lb 2 oz)
Dimensions:	120 (W) × 32.5 (H) × 113 (D) mm (4 ¾ × 1 5⁄16 × 4 ½ inches)

PCS-A300

Microphone Unit for the PCS-3000P

•Microphone unit for the PCS-3000P

SONY
PCS-A300

Supplied accessory:
Cable (8 m)

Bandwidth:	7.0 kHz
Power:	Plug-in power
Mass:	0.2 kg (7.1 oz)
Dimensions :	68 (W) × 15 (H) × 90 (D) mm (2¾ × 19⁄32 × 3⅝ inches)

PCS-F500

Cabinet for PCS-5100P and PCS-3000P

•Holds the rollabout processor and supports virtually any size monitor for the PCS-5100P and the PCS-3000P .

Mass:	33.0 kg (72 lb 12 oz)
Dimensions:	590 (W) × 760 (H) × 703 (D)mm (23¼ × 30 × 27¾ inches)

PCS-F510

Cabinet for 34 inch monitor for PCS-5100P and PCS-3000P

- Holds the rollabout processor and a 34 inch monitor for the PCS-5100P and the PCS-3000P

Mass: 52.0 kg (114 lb 10 oz)
Dimensions: 800 (W) × 760 (H) × 788 (D) mm
(31½ × 30⅛ × 31⅛ inches)

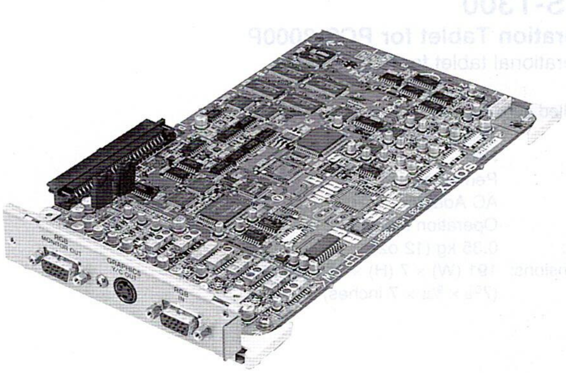
PCS-G510P

Dual monitor board for PCS-5100P

- Adds a second monitor to the PCS-5100P to display documents and graphics in a dual-monitor system
- VGA and SVGA input
- Built in down converter for VGA/SVGA images to be converted to S-video

Supplied accessories:
IR repeater

Mass: 0.3 kg (10 oz)
Dimensions: 135 (W) × 28.5 (H) × 242 (D) mm
(5⅝ × 1⅛ × 9⅝ inches)



PCS-R500

Remote commander for PCS-5100P and PCS-3000P

- Additional remote commander for the PCS-5100P and the PCS-3000P

Mass: 0.13kg (4.6 oz)
Dimensions: 42 (W) × 30 (H) × 182 (D) mm
(1 11/16 × 1 3/16 × 7¼ inches)

PCS-R510

Key Commander for PCS-5100P and PCS-3000P

- Additional remote key commander for the PCS-5000P and the PCS-3000P

Mass: 0.3 kg (6 oz)
Dimensions: 89 (W) × 197 (H) × 36 (D) mm
(3⅝ × 7⅞ × 1 7/16 inches)

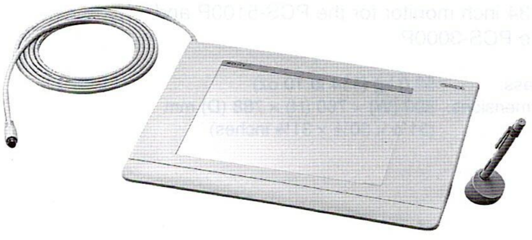
PCS-T500

Drawing tablet for PCS-5100P

- Allows PCS-5100P users to point or draw on the document or still video

Supplied accessories:
Tablet cable (2.5 m)
Pen
Pen stand
Operation manual

Mass: 0.95 kg (2 lb 2 oz)
Dimensions:
330 (W) × 13.9 (H) × 243 (D) mm
(13 × 9/16 × 9⅝ inches)



PCS-T300

Operation Tablet for PCS-3000P

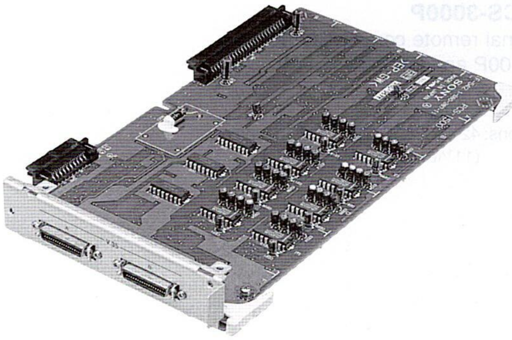
- Operational tablet for PCS-3000P

Supplied accessories:
Tablet Cable (2 m)
Pen
Pen stand
AC Adaptor
Operation Manual
Mass: 0.35 kg (12 oz)
Dimensions: 191 (W) × 7 (H) × 175 (D) mm
(7⅝ × 9/32 × 7 inches)

PCS-I500

V.35 Interface Board for PCS-5100P and PCS-3000P

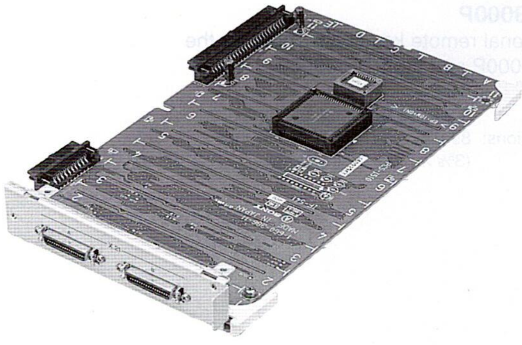
- Provides a V.35 line interface



PCS-I510

X.21 Interface Board for PCS-5100P

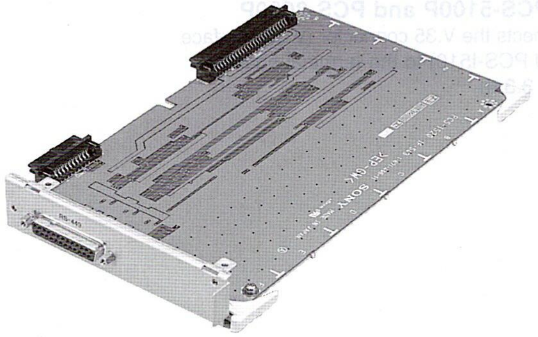
- Provides an X.21 line interface



PCS-I520

RS-449 Interface Board for PCS-5100P

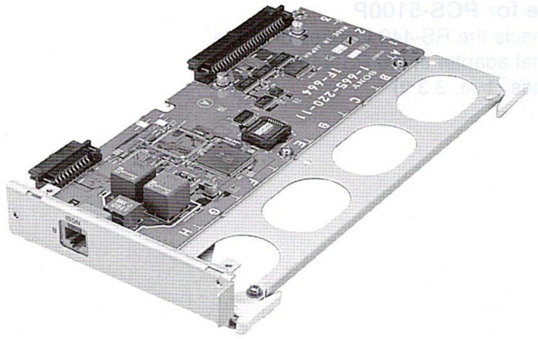
- Provides an RS-449 line interface



PCS-I300

BRI Interface Board for PCS-3000P

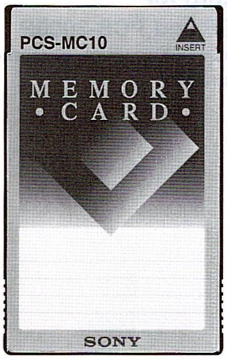
- Interface with ISDN (BRI) x 2 (256kbps) becomes possible
- 4-site multipoint meeting at 56/64 kbps becomes possible



PCS-MC10

Memory Card for PCS-5100P

- Records up to 30 still pictures



PCS-K21

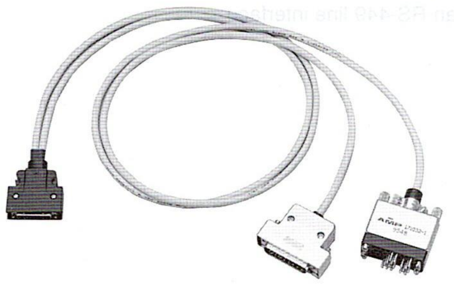
Printer Cable for PCS-5100P

- Connects the Rollabout Processor and a printer (3 m, 9.8 ft)

PCS-K32

V.35 Conversion Connector Cable for PCS-5100P and PCS-3000P

- Connects the V.35 connector (V.35 interface board PCS-I510) to the terminal adapter (1 m, 3.3 ft)



PCS-K40

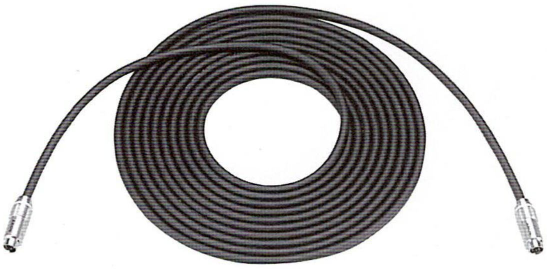
RS-449 Conversion Connector Cable for PCS-5100P

- Connects the RS-449 Connector to the terminal adapter in the RS-449 line interface (1 m, 3.3 ft)

PCS-K60

S-video cord for PCS-5100P and PCS-3000P

- Cord for connecting video equipment with S-video connector



PCS-K70

X.21 Conversion Connector Cable for PCS-5100P

- Connects the X.21 connector (X.21 interface board PCS-I510) to the terminal adapter (1 m, 3.3 ft)

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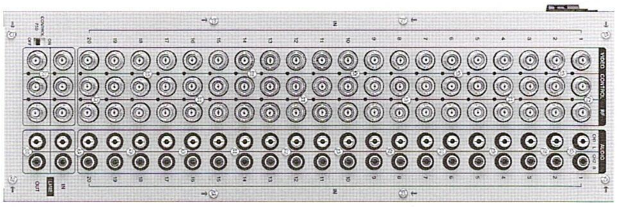
VCS-1000

Video selector

•For use in combination with the SVRM-960 Bi-directional remote controller for high quality picture monitoing •Minimizes the signal reflections caused by long cable runs •Up to 20 SVO-965P equipped with the SVBK-902 optional Bi-directional interface board can be connected to a single VCS-1000 •Loop-through output is provided for connection of up to 50 VCS-1000 units •19-inch EIA rack mountable in various directions •On-Line indicator •When the power is turned off, the LINE OUT becomes a loop-through output of the LINE IN for easy maintenance



Supplied accessories: Mounting brackets (EIA 2U width × 2, DIA 3U width × 2)
AC power cord
Operation manual

Specifications

General
Mass: Approx. 4kg (8 lb 13 oz)
Dimensions: 424(W) × 88(H) × 132(D)mm
(16³/₄ × 3¹/₂ × 5¹/₄ inches)
Power requirements: AC 220 to 240V, 50/ 60Hz
Power consumption: 8.5W max.
Maximum number of VTR connection:
20 units

Video
Video signal system: EIA/CCIR monochrome, NTSC/PAL colour
Frequency response: 6MHz, 100kHz reference
S/N ratio: More than 54dB

Audio
Frequency response: 20Hz to 20kHz, 1kHz -10dBu standard
S/N ratio: More than 85dB

RF video
Frequency response: 6MHz
S/N ratio: More than 54dB

Video inputs/outputs
Video in (from SVO-965P):
BNC (×20), 1Vp-p, sync negative, 37.5Ω, unbalanced
Line in video (from previous VCS-1000):
BNC, 1Vp-p, sync negative, 75Ω unbalanced
Line out video (to SVRM-960 or next VCS-1000):
BNC, 1Vp-p, sync negative, 75Ω unbalanced

Control inputs/outputs
Control input (from SVO-965P): BNC (×20)
Rx*1 input: 1Vp-p, 37.5Ω unbalanced
Tx*2 output: 1.4Vp-p, 37.5Ω unbalanced
Line in control (from previous VCS-1000):
BNC,
Tx intput: 1Vp-p, 37.5Ω, unbalanced
Rx output: 1Vp-p, 37.5Ω, unbalanced
Line out control (to SVRM-960 or next VCS-1000):
BNC,
Tx input: 1Vp-p, 37.5Ω unbalanced
Rx output: 1Vp-p, 37.5Ω, unbalanced

RF
RF IN (from the SVO-965P):
BNC (×20), 1Vp-p, 37.5Ω, unbalanced
Line IN RF (from previous VCS-1000):
BNC, 1Vp-p, 75Ω, unbalanced
Line Out RF (to SVRM-960 or next VCS-1000):
BNC, 1Vp-p, 75Ω unbalanced

Audio inputs/outputs
Audio Input (from SVO-965P):
Phono (2-channel × 20), high impedance, unbalanced
Line In audio (from previous VCS-1000):
Phono (2-channel), high impedance, unbalanced
Line Out audio (to SVRM-960 or next VCS-1000):
Phono (2-channel), high impedance, unbalanced

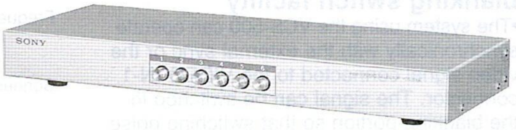
*1: Rx: Signal output from the SVRM-960
*2: Tx: Signal output from the SVO-965P

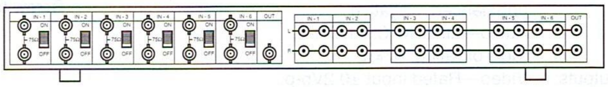
ⓢVCS-63A

Video and audio selector

- A video and audio (stereo) signal can be selected from the six video and audio sources.
- Equipped with the loop-through out connectors for each input signal.
- When two or more selectors are connected in parallel, using the loop-through capability, a camera or VTR signal can be selected independently.
- Can be mounted into a 19-inch EIA standard rack using the supplied rack mount adaptor.

Dimensions:
Approx. 424(W) × 44(H) × 170(D)mm
(16¾ × 1¾ × 6¾ inches)
Mass: Approx. 3kg (6 lb 10 oz)
Connectors: VIDEO IN/OUT—BNC type
AUDIO IN/OUT—PHONO
Supplied accessories:
Rack mount adaptor × 2
Screw for rack mounting × 4





SRP-12DAR

RGB Distribution Unit

•Provides AV applications including PC cost effective and high performance analog RGB distribution •One analog RGB signal is distributed into two signals and monitor signal(total three) •Monitor signal is routed through the D-sub 15p connector to monitor display •Wide frequency response of up to 250 MHz(BNC output) •Compact and durable enclosure is available

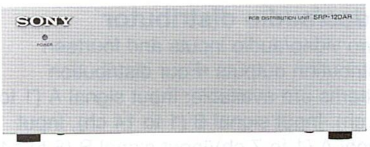
Inputs
Connector: BNC
RGB level: 0.7 Vp-p
RGB impedance:
75 Ω
Hs/Cs level: 1 V-4 Vp-p
Hs/Cs impedance:
47 kΩ (High impedance)
Hs/Cs sync: Positive/negative
Vs level: 1 V-4 Vp-p
Vs impedance:
47 kΩ (High impedance)

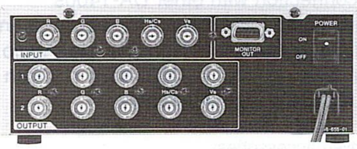
Outputs 1, 2
Connector: BNC
RGB level: 0.7 Vp-p
Hs/Cs level: 1 Vp-p/75 Ω, 4 Vp-p/high impedance
Vs level: 1 Vp-p/75 Ω, 4 Vp-p/high impedance

Monitor out
Connector: D-sub 15p
RGB level: 0.7 Vp-p
Hs/Cs level: 1 Vp-p /75 Ω, 4 Vp-p/high impedance
Vs level: 1 Vp-p/75 Ω, 4 Vp-p/high impedance

Electoric characteristics
RGB bandwidth
Output 1, 2: 40 Hz to 250 MHz+3/-3 dB
Monitor out: 40 Hz to 200 MHz+3/-3 dB
Gain difference between RGBs:
0.2 dB
Delay between RGBs:
Less than 1 ns

General
Power requirements: Power plug converter for 120 V
Power consumption: 4 W





SRP-200DA

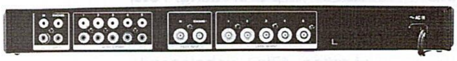
AV Distribution Amplifier

•Can distribute an AV input signal in five ways •The 75Ω terminator of the video input is automatically disconnected when a cable is connected to the stacking terminal. Up to four units can be connected in parallel •Can be mounted into a 19-inch EIA standard rack

General
Dimensions: 482(W) × 44(H) × 175(D)mm
(19 × 1¾ × 7 inches)
Mass: 2.5kg (5 lb 8 oz)
Power requirements:
AC 120V, 230V, 50Hz/60Hz
Power consumption:
5W
Operating temperature:
0 to 40°C (32 to 104°F)
Storage temperature:
-20 to +60°C (-4 to +140°F)

Video
Frequency responce:
100 kHz to 10 MHz, -0.5dB
DG: Less than 0.5%
DP: Less than 0.4°
Input: 75Ω/high impedance
(high impedance at stacking output)
BNC connector x1
Outputs: 75Ω, BNC connector ×5
(high impedance at stacking output)

Audio
Frequency response:
20Hz to 20kHz
Harmonic distortion:
Less than 0.005%
Inputs (one stereo)
Reference level:
-10dBu
Max. level: +10dBu
Impedance: 47kΩ
Type: Phono jack
Circuit: Unbalanced
Outputs (five stereo)
Reference level:
-10dBu
Max. level: +10dBu
Impedance: 47Ω
Type: Phono jack
Circuit: Unbalanced

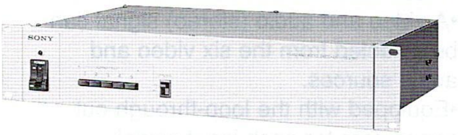


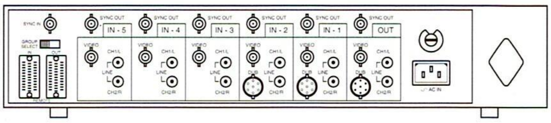
VCS-500

Video and audio switcher with blanking switch facility

- The system using the VCS-500 can operate synchronically with the external sync or the video signal connected to the VIDEO IN-1 connector. The signal can be switched in the blanking portion so that switching noise is eliminated
- Up to five video and audio signals can be controlled
- Remote control is possible when an RM-V5 VTR selector is used
- DUB circuit switching function
- Can be mounted into 19-inch EIA standard rack

Inputs: Video—1Vp-p of rating, 75Ω, unbalanced, sync negative
Sync—3V ±1Vp-p, 75Ω, unbalanced, negative
Audio—LINE IN CH-1/CH-2, -5dB of rating, 47kΩ
Outputs: Video—Rated input ±0.2Vp-p, 75Ω, unbalanced, sync negative
Sync—3V ±1Vp-p, 75Ω, unbalanced, negative
Audio—LINE OUT CH-1/CH-2, rated input ±2dB, 47kΩ
Frequency response:
Video ±1dB (up to 6MHz)
Audio 50 to 15,000Hz ±1dB
Connectors: VIDEO IN/OUT—BNC
SYNC IN/OUT—BNC
AUDIO IN/OUT—Phono
REMOTE IN/OUT—20-pin
DUB IN/OUT—7-pin
Power requirements:
AC 100/110/120/127/220/240V ±10% (selectable), 50/60Hz
Power consumption:
20W
Dimensions: 480(W) × 87(H) × 280(D)mm (19 × 3 1/2 × 11 1/8 inches)
Mass: 7kg (15 lb 7 oz)
Supplied accessories:
AC power cord
Screw for rack mounting





DA-1400

Video/audio distributor

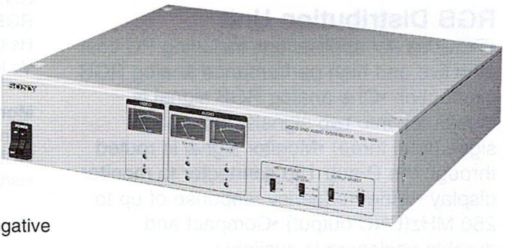
- Two video/audio inputs and fourteen distribution outputs
- Four distribution patterns are available: Input signal A (1 to 14 ch), Input signal B (1 to 14 ch), Input signal A (1 to 7 ch)/Input signal B (8 to 14 ch), Input signal B (1 to 7 ch)/Input signal A (8 to 14 ch)
- Loop-through output connector for each input signal to expand the connection with other DA-1400s
- Video/audio level meters for adjusting and confirming the output signal levels
- Audio input level selector (-10dB/-6dB)
- 19-inch EIA standard rack mountable

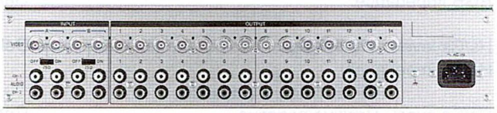
Supplied accessories:
AC power cord
Mounting brackets (EIA 2U width: 1 pair)
Operation manual

General
Mass: 6kg (13 lb 23 oz)
Dimensions: 424(W) × 88(H) × 350(D)mm (16 3/4 × 3 1/2 × 13 7/8 inches)
Power requirements:
AC 220 to 240V, 50/60Hz
Power consumption:
16W

Video
Inputs: Loop-through, BNC (×2), 1Vp-p, 75Ω, sync negative
Outputs: BNC (×14), 1Vp-p, 75Ω, sync negative
S/N ratio: Better than 60dB
Frequency response:
10MHz ± 1dB

Audio
Inputs: Loop-through, Phono (2-channel) (×2)
Input level: –10dBu/–6dBu switchable, 50kΩ
Outputs: Phono (2-channel) (×14)
Output level: –10dBu/–6dBu, 100Ω
S/N ratio: Better than 70dB at 600Ω
Frequency response:
20Hz to 20kHz ±1dB
Distortion: Less than 0.1%, -10dBu at 1kHz



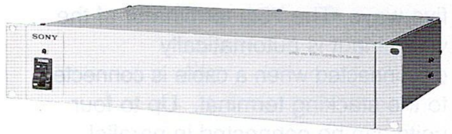


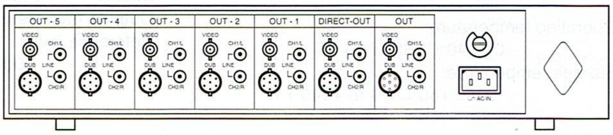
DA-500

Colour and monochrome video/audio distributor with DUB connectors

- Five Video/DUB/Audio outputs and one direct output
- DUB connectors are furnished so that a high quality video signal will be obtained
- Up to four DA-500s can be connected in series so that the input signal can be divided into as many as 20 separate signals
- Can be mounted into 19-inch EIA standard rack

Inputs: Video—1Vp-p of rating, 75Ω, unbalanced, sync negative
Audio—LINE CH-1/CH-2, -5dB of rating, 47kΩ, unbalanced
Outputs: Video—OUT 1 to 5, Rated input ±0.2Vp-p, 75Ω, unbalanced, sync negative
Audio—LINE CH-1/CH-2, Rated input ±2dB, 47kΩ
Connectors: VIDEO IN/OUT, DIRECT OUT—BNC
AUDIO IN/OUT, DIRECT OUT—Phono
Power requirements:
AC 100/110/120/127/220/240V ±10% (selectable), 50/60Hz
Power consumption:
20W
Dimensions: 480(W) × 87(H) × 280(D)mm (19 × 3 1/2 × 11 1/8 inches)
Mass: 6.1kg (13 lb 7 oz)
Supplied accessories:
AC power cord
Screw for rack mounting





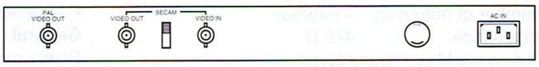
ⓈCST-1000SP

SECAM-PAL transcoder

- Converts SECAM colour signal to PAL colour signal

Input signal: SECAM colour composite 1Vp-p, 75Ω switchable of high impedance for loop-through
Output signal: PAL colour composite, 1Vp-p, 75Ω
Signal conversion method: Decode/encode
Input/Output connector: BNC
Power requirements: AC 220V ±10%, 50/60Hz
Power consumption: 15VA
Operating temperature: 0 to 45°C (32 to 113°F)
Dimensions: 424(W) × 44(H) × 250(D)mm (16¾ × 1¾ × 9⅞ inches)
Mass: 4kg (8 lb 13 oz)
Supplied accessories:
AC power cord (×1)
Fuse (315mAT) (×1)
Rack mount metals (×1 set)

SONY
SECAM-PAL TRANSCODER
CST1000SP



VA-200E

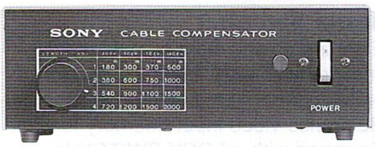
Cable compensator for stable colour/monochrome video transmission

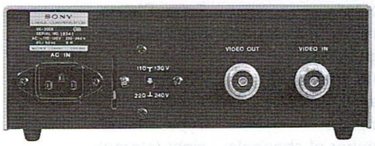
- Compensates for the attenuation caused by long-distance transmission of colour/monochrome video signals with a coaxial cable
- Especially effective for the transmission of colour video signals

Length adjustments

	3C-2V	5C-2V	7C-2V	10C-2V
1	180m	300m	370m	500m
2	360m	600m	750m	1000m
3	540m	900m	1100m	1500m
4	720m	1200m	1500m	2000m

Video input: 1.0Vp-p to 1.4Vp-p 75Ω, unbalanced
Video output: 1Vp-p, 75Ω, unbalanced
Frequency response: Flat to 4.5MHz ±2dB
Operating temperature: 0 to 40°C (32 to 104°F)
Connectors: VIDEO IN/OUT—UHF (M-type)
Power requirements: AC 110 to 130/220 to 240V selectable, 50/60Hz
Power consumption: 6W
Dimensions: 214(W) × 75(H) × 171(D)mm (8½ × 3 × 6¾ inches)
Mass: 1.4kg (3 lb 4 oz)
Supplied accessory: AC power cord





PVS-1680S

Matrix Switcher

- Sixteen inputs and eight outputs matrix functions
- RS-232C interface port for remote control from a PC
- Reference video input and roop-through output
- Memory function up to 50-scene
- Equipped with a LOCK SWITCH to prevent inadvertent operation
- 4U high, mountable in 19-inch standard rack

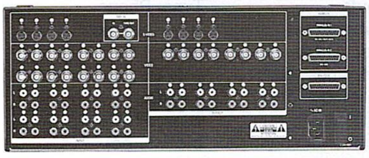
Supplied accessory: Power cable (1)

Audio
Input and output connector: Phono
Number of input ch: 16 (stereo)
Impedance: 47 kΩ
Reference(Max.) input level: -10 dBu (+16 dBu)
Input impedance: 47 kΩ
Number of output ch: 8 (stereo)
Impedance: 470 Ω
Reference(Max.) output level: -10 dBu (+16 dBu)
Output impedance: 470 Ω
Load impedance: More than 10 kΩ
Frequency response: 20 Hz to 20 kHz, +0.1 dB/ -0.5 dB
T.H.D.: Less than 0.005%

Video (Composite)
Input and output connector: BNC

S-Video
Input and output connector: 4-pin mini DIN
Number of input and output : 4*
*Interlocked with channels to 1 to 4 of composite input
Input and output impedance: 75 Ω
Frequency response: 50 Hz to 10 MHz

General
Power requirements: AC 230 V, 50/60 Hz
Power consumption: 25 W
Operating temperature: 0 to 40°C (32 to 10°F)
Storage temperature: -20 to 60°C (-4 to 140°F)
Mass: 13 kg(22 lb 1 oz)
Dimensions: 482 (W) × 176 (H) × 350 (D)mm (19 × 7 × 13⅞ inches)



PVS-1240S

Matrix Switcher

•Twelve inputs and four outputs matrix functions •RS-232C interface port for remote control from a PC •Reference video input and loop-through output •Memory function up to 50-scene •Equipped with a LOCK SWITCH to prevent inadvertent operation •4U high, mountable in 19-inch standard rack

Supplied accessories:	Power cable (1), Plug adaptor (1)

Audio

Inputs and output connector:	Phono
Number of input ch:	12 (stereo)
Impedance:	47 kΩ
Reference(Max.) input level:	-10 dBu (+16 dBu)
Input impedance:	47 kΩ
Number of output ch:	4 (stereo)
Impedance:	470 Ω
Reference(Max.) output level:	-10 dBu (+16 dBu)
Output impedance:	470 Ω
Load impedance:	More than 10 kΩ
Frequency response:	20 Hz to 20 kHz, +0 dB/ -0.5 dB
T.H.D.:	Less than 0.002%

Video (Composite)

Inputs and output connector:	BNC
Number of input ch:	12
Number of output ch:	4
Input and output impedance:	75 Ω
Frequency response:	50 Hz to 10 MHz, +0.8 dB / -0.5 dB
DG:	Less than 0.5%
DP:	Less than 0.5°

S-Video

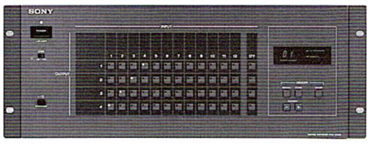
Input and output connector:	4-pin mini DIN
Number of input and output ch :	4*

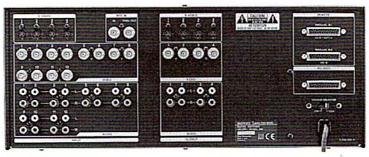
*Interlocked with ch1 to 4 of composite input

Input and output impedance:	75 Ω
Frequency response:	50 Hz to 10 MHz

General

Power requirements:	AC 120/230 V, 50/60 Hz
Power consumption:	18 W
Operating temperature:	0 to 40°C (32 to 10°F)
Storage temperature:	-20 to 60°C (-4 to 140°F)
Mass:	10 kg (22 lb 1 oz)
Dimensions:	482 (W) × 176 (H) × 350 (D)mm (19 × 14 × 13 7/8 inches)





PVS-880S

Matrix Switcher

•Eight inputs and eight outputs matrix functions •RS-232C interface port for remote control from a personal computer •Reference video input •Memory function •Equipped with a LOCK SWITCH to prevent inadvertent operation •Can be mounted in a 19-inch EIA standard rack

Supplied accessory:	Power cable (1)

Audio

Inputs:	Type: Phono
Number of channels:	eight (stereo)
Impedance:	47kΩ
Reference level:	–10dBu
Max. input level:	+16dBu
Outputs:	Type: Phono
Number of channels:	eight (stereo)
Impedance:	470Ω
Reference level:	–10dBu
Max. output level:	+16dBu
Load impedance:	More than 10kΩ
Frequency response:	20Hz to 20kHz, +0.1/–0.5dB
Total harmonic distortion:	Less than 0.005%

Video

Composite

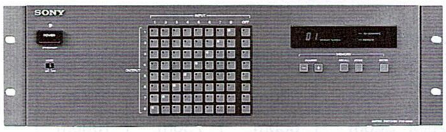
Inputs:	Type: BNC
Number of channels:	eight
Impedance:	75Ω
Outputs:	Type: BNC
Number of channels:	eight
Impedance:	75Ω
Reference video:	Type: BNC
Number of inputs:	two
Impedance:	47kΩ
Max. input level:	4Vp-p
Frequency response:	50kHz to 10MHz, +0.8/-0.5dB
DG:	Less than 0.5%
DP:	Less than 0.5°

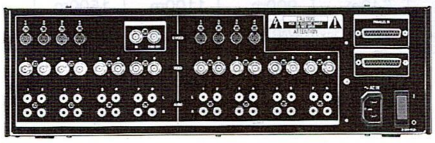
S-Video

Inputs:	Type: 4-pin mini DIN
Number of channels:	four* *Interlocked with channels to 1to 4 of VIDEO IN (composite)
Impedance:	75Ω
Outputs:	Type: 4-pin mini DIN
Number of channels:	four
Impedance:	75Ω
Frequency response:	50kHz to 10MHz, ±0.5dB

General

Power requirements:	AC 120–230V, 50/60Hz
Power consumption:	17W
Operating temperature:	0 to 40°C (32 to 104°F)
Storage temperature:	–20 to 60°C (–4 to 140°F)
Mass:	10kg (22 lb 1 oz)
Dimensions:	482(W) × 132(H) × 350(D)mm (19 × 5 1/4 × 13 7/8 inches)





*Except for North America

PVS-820S

Matrix Switcher

•Eight inputs and two outputs matrix functions •Reference video input •Equipped with a LOCK SWITCH to prevent inadvertent operation •Can be mounted in a 19-inch EIA standard rack

Supplied accessory:	Power cable (1)

Audio

Inputs:	Type: Phono
Number of channels:	eight (stereo)
Impedance:	75Ω
Reference level:	–10dBu
Max. input level:	+10dBu
Outputs:	Type: Phono
Number of channels:	two (stereo)
Impedance:	470Ω
Reference level:	–10dBu
Max. output level:	+10dBu
Load impedance:	More than 10kΩ
Frequency response:	20Hz to 20kHz, +0.1/–0.5dB
Total harmonic distortion:	Less than 0.005%

Video

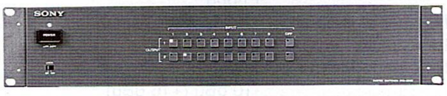
Inputs:	Type: BNC
Number of channels:	eight
Impedance:	75Ω
Outputs:	Type: BNC
Number of channels:	two
Impedance:	75Ω
Reference video:	Type: BNC
Number of input:	two
Impedance:	47Ω
Max. input level:	4Vp-p
Frequency response:	50kHz to 10MHz, +0.3/–1dB
DG:	Less than 0.5%
DP:	Less than 0.5°

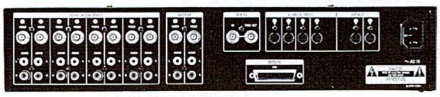
S-Video

Inputs:	Type: 4-pin mini DIN
Number of channels:	four* *Interlocked with channels to 1 to 4 of VIDEO IN (composite)
Impedance:	75Ω
Output:	Type: 4-pin mini DIN
Number of channels:	two
Impedance:	75Ω
Frequency response:	50kHz to 10MHz, +0.3/-1dB

General

Power requirements:	AC 120V–230V, 50/60Hz
Power consumption:	17W
Operating temperature:	0 to 40°C (32 to 10°F)
Storage temperature:	–20 to 60°C (–4 to 140°F)
Mass:	4kg (8 lb 13 oz)
Dimensions:	482(W) × 88(H) × 220(D)mm (19 × 3 1/2 × 8 3/4 inches)





*Except for North America

BC-1WDCE

Battery charger for NP-1B

- Battery charger for the NP-1B battery pack
- Up to four NP-1B batteries can be charged
- Auto refresh function •Battery life indication
- Skips charging process for fully charged batteries

Power requirements:
AC 220 to 240V ±10%, 50/60Hz
Power consumption:
65W
Charging time: Approx. 90min
Dimensions: 107.5 (W) × 88 (H) × 325 (D) mm
($4^1/_4 \times 3^1/_2 \times 12^7/_8$ inches)
Mass: Approx. 1.7 kg (3 lb 5 oz)

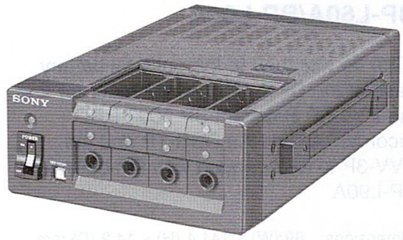
BC-410CE

Battery charger for BP-90A/NP-1B

- Battery charger for BP-90A and NP-1B
- Up to four BP-90As and four NP-1Bs can be charged •Battery refreshing function
- Trickle charge to avoid self-discharge

Power requirements:
AC 220/240V selectable, 50/60Hz
Power consumption:
75W
Charging time:
BP-90A: 160 min
NP-1B: 90 min
Dimensions:
212 (W) × 85 (H) × 325 (D) mm
($4^1/_2 \times 3^3/_8 \times 12^7/_8$ inches)
Mass: 4 kg (8 lb 13 oz)

Supplied accessories:
AC power cord
Operation/maintenance manual



BC-L50

Lithium-ion Battery Charger

- Compact and mobile battery charger which can be used with Lithium-ion battery packs
- Up to two Lithium-ion batteries attached
- Use a unique new time-saving charging system for quick charges

Power requirements:
AC 220 V to 240 V, 50/60 Hz
Output: DC 16.8 V, 2.2 A
Power consumption:
Approx. 49 W
Operating temperature:
-5° C to 45° C (23° F to 113° F)
Storage temperature:
-20° C to 60° C (-4° F to 140° F)
Operating/storage humidity:
5 to 90 % RH

Mass: 1.1 kg (2 lb 6 oz)
Dimensions (w/h/d):
60 × 191 × 130 mm
(2 ⅜ × 7 ⅝ × 5 ⅛ inches)
(w/o projections)
Charge system:
Constant voltage and current charge system with timer stop system
Charge control system:
Constant voltage and current chargecontrol system
Booster charge current:
Approx. 2.2 A

BC-L100CE

Battery charger for BP-L60A BP-L90A/NP-1B/BP-90A

- Battery charger for BP-L60A/BP-L90A/NP-1B/BP-90A batteries •Up to four BP-L60A, BP-L90A, NP-1B or BP-90A can be charged

Power requirements:
AC100V to 240V, 50/60Hz
Power consumption:
110W
Charging time:
BP-L60A: Approx. 2.5 hours
BP-L90A: Approx. 3.5 hours
NP-1B: Approx. 70 min

Dimensions: 330 (W) × 131 (H) × 144 (D) mm
($13 \times 5^1/_4 \times 5^3/_4$ inhes)
Mass: Approx. 2 kg (4 lb 7 oz)

BC-V500

Battery charger

•Compact battery chager for the NP-F530/F730/F930, etc. •Two batteries can be charged at the same time

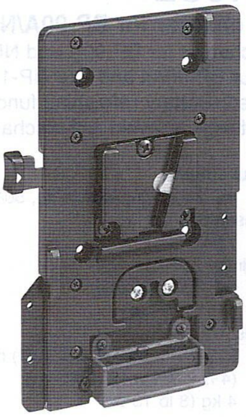
Dimensions: 45(W) × 98(H) × 50(D) mm
Mass: Approx. 120 g
Power requirements:
AC100 to 240V, 50/60Hz
Output: DC 8.4V/0.6A

BKW-L601

Battery adaptor for between DSR-1P, PVV-3P and BP-L60A/BP-L90A

•Can be attached to the optional battery case of the DSR-1P DVCAM recorder and the PVV-3P Betacam SP 2000 PRO recorder •Allows the DSR-1P and the PVV-3P to be operated with BP-L60A and BP-L90A

Dimensions: 89 (W) × 141.4 (H) × 14.2 (D) mm
($3\frac{5}{8} \times 5\frac{5}{8} \times \frac{9}{16}$ inches)
Mass: 110 g (4 oz)

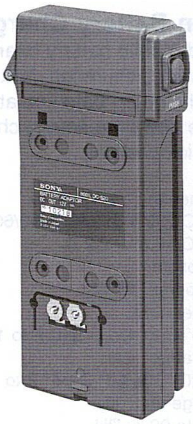


DC-520

Battery adaptor for NP-1B

•Can be attached to the supplied battery case of the DSR-1P, PVV-3P Betacam SP 2000PRO recorder UVW-100BP
•Allows the DSR-1P, PVV-3P and UVW-100BP to be operated with two NP-1B batteries
•Supplies DC 12V to the DSR-1P, PVV-3P and UVW-100BP

Dimensions: 100 (W) × 195 (H) × 44 (D) mm
($4 \times 7\frac{3}{4} \times 1\frac{3}{4}$ inches)
Mass: 230 g (8 oz)
Supplied accessories:
Screws (M3 × 6)



DC-500 (Mount type)

Battery case for BP-90A

•Battery case for one BP-90A battery
•Designed for the DSR-1P, PVV-3P and UVW-100BP
•Supplies DC 12V

Dimensions: 147 (W) × 207 (H) × 62 (D) mm
($5\frac{7}{8} \times 8\frac{1}{4} \times 2\frac{1}{2}$ inches)
Mass: 400 g (14 oz)
Supplied accessories:
Screws (M3 × 5)

DC-210 (waist belt type)

Battery case for BP-90A

- Battery case for one BP-90A battery pack
- Supplies DC 12V to Sony video equipment

Dimensions: 145 (W) × 180 (H) × 85 (D) mm
(5¾ × 7⅛ × 3⅜ inches)
Mass: 500 g (1 lb 2 oz)
Supplied accessories:
Power cord (1.2m) (×1)
Belt

DC-L1

Battery Case for NP-1B

- Battery Case for a NP-1B battery to be used with the camcorders/portable editors which incorporates the V-shoe attachment
- Quick and easy battery change

Specifications

Dimensions: 101(W) × 196.2(H) × 54.8(D) mm
(4 × 7¾ × 2¼ inches)
Mass: 300g (11 oz)

DC-L90

Battery Case for BP-90A

- Battery Case for a BP-90A battery to be used with the camcorders/portable editors which incorporates the V-shoe attachment
- Quick and easy battery change

Specifications

Dimensions: 138(W) × 203.6(H) × 76.6(D) mm
(5½ × 8⅛ × 3⅛ inches)
Mass: 620g (1 lb 6 oz)

BP-L40

Lithium-ion Battery

- Compact Lithium-ion battery for professional Sony camcorders, which is designed to match the body height of the DSR-300P
- Provides continuous camcorder operation for approximately 80 minutes.

Battery type:
Lithium-ion battery
Maximum voltage:
16.8 V DC
Nominal voltage:
14.4 V DC
Capacity: 38.9 Wh
Dimensions (w/h/d):
92 × 138 × 37 mm
(3 ⅝ × 5 ½ × 1 ½ inches)
Mass: Approx. 520 g (1 lb 1 oz)

BP-L60A

Rechargeable Lithium Ion Battery Pack

•High capacity lithium-ion battery •No "Memory Effect" •Built-in LED capacity indicator for a quick visual check of the remaining charge •V-shoe attachment for quick and easy battery change

Specifications

Type of battery: Lithium-ion rechargeable
Maximum voltage: 16.8V
Nominal voltage: 14.4V
Current capacity: 60Wh
Cell capacity: 5.4Ah
Operating temperature: –20°C to +45°C (–4°F to +113°F)
Dimensions: 101(W) × 168.7(H) × 37(D) mm
(4 × 6¾ × 1½ inches)
Mass: 900g (1 lb 16 oz)

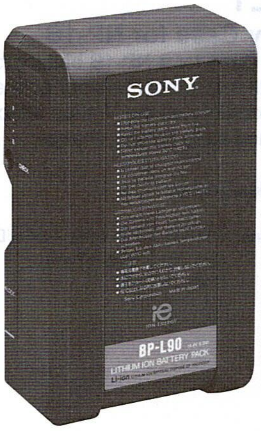
BP-L90A

Rechargeable Lithium Ion Battery Pack

•High capacity lithium-ion battery •No "Memory Effect" •Built-in LED capacity indicator for a quick visual check of the remaining charge •V-shoe attachment for quick and easy battery change

Specifications

Type of battery: Lithium-ion rechargeable
Maximum voltage: 16.8V
Nominal voltage: 14.4V
Current capacity: 90Wh
Cell capacity: 8.1Ah
Operating temperature: –20°C to +45°C (–4°F to +113°F)
Dimensions: 101(W) × 168.7(H) × 60(D) mm
(4 × 6¾ × 2⅜ inches)
Mass: 1300g (2 lb 14 oz)



BP-90A

Rechargeable battery pack

•Supplies DC 12V to DSR-1P, PVV-3P, UVW-100BP, PVM-9044QM/9041QM/ 6041QM, TU-1040E

Type of battery: NiCd rechargeable
Voltage: DC 12V
Current capacity: 5Ah
Dimensions: 123 (W) × 171 (H) × 37 (D) mm
(4⅞ × 6¾ × 1½ inches)
Mass: 1.6 kg (31 lb 8 oz)

NP-1B

Rechargeable battery pack

•Supplies DC 12V to DSR-1P, PVV-3P, UVW-100BP, VO-8800P, DXC-D30P/ D30WSP/637P/327BP, EVW-300P, PVM-9044QM/9041QM/ 6041QM, TU-1040E, EVM-9010PR/1410PR

Battery used: NiCd battery
Output voltage: DC 12V
Capacity: 2.3 Ah
Dimensions: Approx. 72 (W) × 25 (H) × 185 (D) mm
(2⅞ × 1 × 7⅜ inches)
Mass: Approx. 600 g (1 lb 5 oz)

NP-F220/B
Rechargeable Lithium-ion Battery

Maximum voltage:
8.4 V DC
Capacity: 1400mAh
Dimensions (w/h/d):
82 × 20 × 54 mm
(3 ¼ × 13⁄16 × 2 ¼ inches)
Mass: Approx. 100 g (3 oz)

InfoLITHIUM

NP-F950/B
Rechargeable Lithium-ion Battery

Maximum voltage:
7.2 V DC
Capacity: 4050mAh
Dimensions: 38.4(W) × 59.7(H) × 70.8(D) mm
Mass: Approx. 280 g

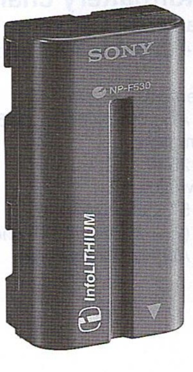
SONY
NP-F950
InfoLITHIUM L

NPA-10000/B
Three-battery Holder
*Can hold three NP-F950/B Lithium-ion Battery

Power requirements:
7.2 VDC
Dimensions (w/h/d):
95 × 132 × 81mm
(3 ¾ × 5 ¼ × 3 ¼ inches)
Mass: Approx. 220 g

NP-F550 (F530)
Rechargeable Lithium-ion Battery
- Can be used for the DKC-CM30

Voltage: 7.2V
Capacity: 1500 mAh (1350 mAh)
Dimensions (W × H × D):
38.4 × 20.6 × 70.8 mm
(1 9⁄16 × 13⁄16 × 2 ⅞ inches)
Mass: Approx. 95 g (110 g)



AC-550CE

AC Adaptor

•Supplies DC power to the one-piece camcorder and a portable VTR through the 26-pin (CCZ-type) camera connector or the XLR 4-pin DC OUT connector

Supplied accessories:
AC power cord
DC power cord
Operation and Maintenance manual

Power requirements:	AC 110 to 120V/220 to 240V ±10% selectable, 50Hz	
Power consumption:	Max 130W	
DC output:	13.5V, 7A	
Input/Output connectors:	CAMERA:	CCZ-type 26-pin
	VIDEO OUT:	BNC type
	MIC OUT:	Equivalent to XLR-3-31
	DC OUT:	Equivalent to XLR-4-31
	EXT VBS:	BNC type
Dimensions:	217 (W) × 91 (H) × 327 (D) mm ($8\frac{5}{8} \times 3\frac{5}{8} \times 12\frac{7}{8}$ inches)	
Mass:	3.8 kg (8 lb 6 oz)	

SONY
AC ADAPTOR
CAMERA
DC OUT
POWER

AC-DN1

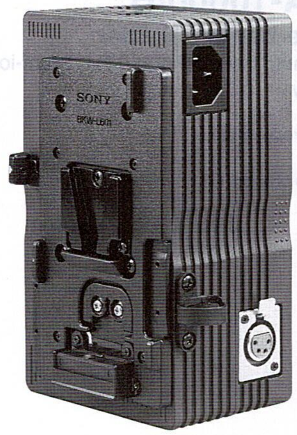
AC Adaptor

Power requirements:	AC 100V to 240V
Power consumption:	50W (90VA) or less
Power output (DC):	38W
Voltage output (DC):	16.7V
Mass:	660g
Demensions:	112(W) × 169(H) × 38(D)mm
Charging time:	BP-L60A 4hr. (to about 85% capacity) BP-L90A 6hr. (to about 85% capacity)
Supplied accessories:	DC power cord (1) BKW-L601/1 (1)

AC-DN2A

AC Adaptor

Power requirements:	AC 100V to 240V
Power consumption:	180W
Power output (DC):	150W
Voltage output (DC):	16.7V
Mass:	1kg
Demensions:	112(W) × 169(H) × 70(D)mm
Charging time:	BP-L60A 4hr. (to about 85% capacity) BP-L90A 6hr. (to about 85% capacity)
Supplied accessories:	DC power cord (1)

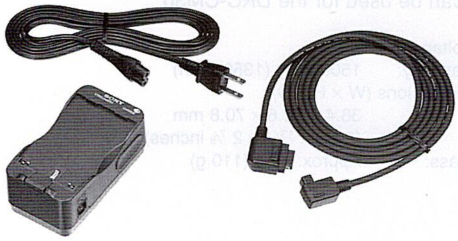


AC-V100/B

AC adaptor/battery charger

*Battery charger for Lithium-ion battery such as NP-F220/B and AC adoptor

Power requirement:	AC 100V to 240V, 50/60Hz
Power consumption:	25 W
Dimensions (w/h/d):	57 × 44 × 107 mm (2 ¼ × 1 ⅝ × 4 ¼ inches)
Mass:	Approx. 190 g (6 oz)



AC-V615/B

*(for PAL areas except Europe)

AC adaptor/battery charger

•For charging Lithium-ion batteries such as the NP-F950/B is possible

Power requirements:
AC 100V to 240V, 50Hz/60Hz
Dimensions: 56(W) × 44(H) × 107(D) mm
Mass: Approx. 190 g

AC-V625/B

*(for Europe area)

AC adaptor/battery charger

•For charging Lithium-ion batteries such as the NP-F950/B is possible

Power requirements:
AC 100V to 240V, 50Hz/60Hz
Dimensions: 56(W) × 44(H) × 107(D) mm
Mass: Approx. 190 g

AC-V900/B

Three-battery charger/AC adaptor

*Battery charger which can hold three-battery such as NP-F950/B and AC adoptor

Power requirement:
AC 100V to 240V, 50/60Hz
Power consumption:
70W
Dimensions (w/h/d):
169(W) × 58(H) × 153(D) mm
Mass: Approx. 650 g

Basic Consoles

System consoles

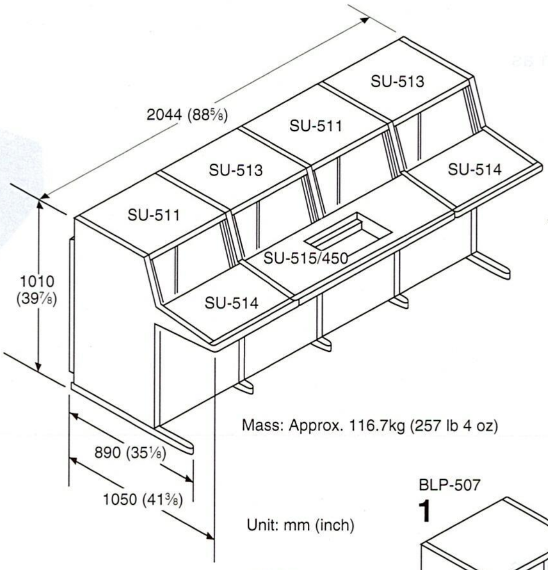
SU-450	Double size table for RM-450CE/DME-450P
SU-511	Unit rack
SU-512	Unit table
SU-513	Extension rack
SU-514	Extension table
SU-515	Double size table for RM-440

Rack mount metals

RMM-450	For RM-450CE/DME-450P mounting
RMM-501	For Type-5/9 series VTR mounting
RMM-502	For RM-500 or RM-V5 mounting
RMM-503	For RM-580 mounting
RMM-505	For RM-500 (× 2), RM-V5 (× 2) or RM-500/RM-V5 mounting
RMM-506	For Betamax or audio equipment mounting
RMM-507	For Type-7/9 series VTR mounting (except VO-9850P/9800P)

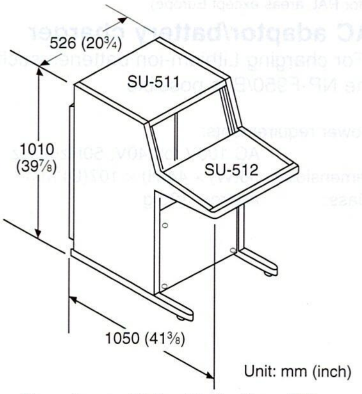
Blank panels

BLP-501	1U Blank panel
BLP-502	2U Blank panel
BLP-503	3U Blank panel
BLP-504	1U Pad panel
BLP-505	2U Pad panel
BLP-506	6U Modification panel
BLP-507	Blank panel


2044 (88⅝)
SU-513
SU-511
SU-513
SU-514
SU-511
SU-515/450
SU-514
1010 (39⅞)
890 (35⅛)
1050 (41⅜)

Mass: Approx. 116.7kg (257 lb 4 oz)

Unit: mm (inch)

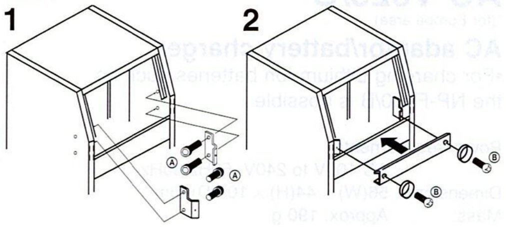

526 (20¾)
SU-511
1010 (39⅞)
SU-512
1050 (41⅜)

Unit: mm (inch)

Mass: Approx. 37.2kg (82 lb) without VTR

CT-501

BLP-507



5. Connecting cables

CCA-7 cables (10-pin/10-pin)

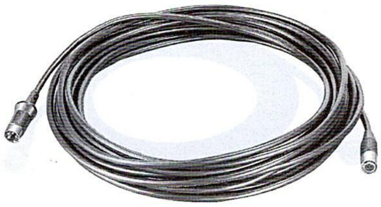
CCA-7-5 : 5m (16.5 ft)
CCA-7-25 : 25m (82 ft)
CCA-7-50 : 50m (165 ft)
CCA-7-100 : 100m (330 ft)

- •10-pin (male) ↔ 10-pin (female)
- •RM-M7G ↔ DXC-D30P/300P/637P/ 327BP series
- •RM-M7G ↔ CCU-M7P/M5P
- •RM-M7G ↔ CA-325AP/325BP

CCDC cables (12-pin/4-pin)

CCDC-5 : 5m (16.4 ft)
CCDC-10 : 10m (33 ft)
CCDC-25 : 25m (82 ft)

- •12-pin (female) ↔ 4-pin (male)
- •DXC-LS1P/107AP/950P/9100P ↔ CMA-D2CE



CCDC-A cables (12-pin/4-pin)

CCDC-50A : 50m (164 ft)
CCDC-100A : 100m (330 ft)

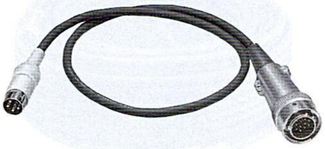
- •12-pin (female) ↔ 4-pin (male)
- •DXC-LS1P/107AP/950P/9100P ↔ CMA-D2CE

CCDD-2.5 (4-pin/4-pin)

- •4-pin (male) ↔ 4-pin (female), 2.5m (8.2 ft)
- •SEG-2000AP series ↔ CRK-2000P

CCDQ-06 (14-pin/4-pin)

- •14-pin (male) ↔ 4-pin (male), 0.6m (2 ft)



CCF cables (6-pin/6-pin)

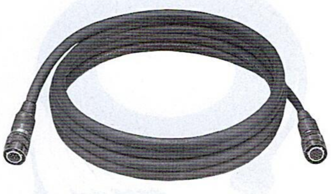
CCF-1 : 1m (3.3 ft)
CCF-5 : 5m (16.4 ft)
CCF-10 : 10m (33 ft)
CCF-25 : 25m (82 ft)
CCF-50 : 50m (164 ft)

- •6-pin (male) ↔ 6-pin (female)
- •SEG-2000AP/2550AP ↔ WEX-2000P

CCMC cables (12-pin/12-pin)

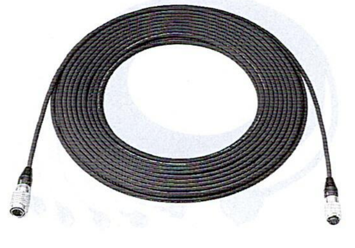
CCMC-12P02 : 2m (6.4 ft)
CCMC-12P05 : 5m (16.4 ft)
CCMC-12P10 : 10m (33 ft)
CCMC-12P25 : 25m (82 ft)

- •12-pin (male) ↔ 12-pin (female)
- •DXC-107AP series ↔ CMA-D7CE
- •DXC-LS1P/107AP/950P/9100P ↔ CMA-D2CE



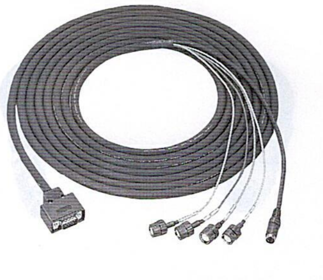
CCMC-16P10 (16-pin/20-pin)

- •16-pin (female) ↔ 20-pin (female), 10m (33 ft)
- •DXC-LS1P Camera Head ↔ DXC-LS1P Camera Control Unit



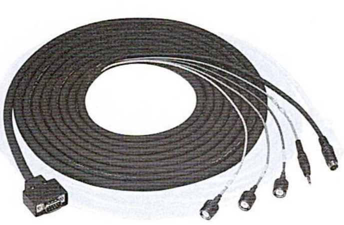
CCMC-9DS (9-pin/4BNCs, DIN 4-pin)

- •9-pin D-sub (male) ↔ BNCs (R/G/B/ SYNC, male), DIN 4-pin (Y/C, male)
- •5m (16.4 ft)
- •For video output from DXC-950P/9100P



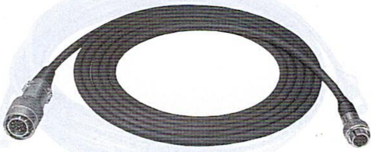
CCMC-9DSMN (9-pin/3BNCs, AUDIO MINI JACK, DIN 4-pin)

- 9-pin D-sub (male) ↔ BNCs (R/G/B, male), DIN 4-pin (Y/C, male), AUDIO MINI JACK (SYNC), 5m (16.4 ft)
- DXC-950P/9100P ↔ UP-7300MDP/5600MDP/2850P/2800P/2330P/2300P/2100P



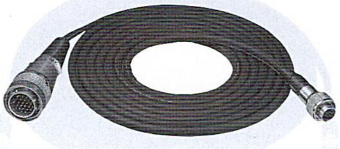
CCTQ-3RGB (20-pin/14-pin)

- DXC-950P/9100P ↔ CCU-M5P, 3m (10 ft)
- CCQQ-1 interconnection adaptor is supplied
- It is possible to extend the cable length with CCQ-AM cable
- RGB/VBS output to CCU-M5P



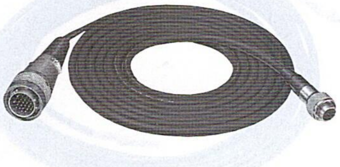
CCTZ-3RGB (20-pin/26-pin)

- DXC-950P/9100P ↔ CCU-M5P, 3m (10 ft)
- CCZZ-1E interconnection adaptor is supplied
- It is possible to extend the cable length with CCZ-A cable
- RGB/VBS output to CCU-M7P/M5P



CCTZ-3YC (20-pin/26-pin)

- DXC-950P/9100P ↔ CCU-M5P, 3m (10 ft)
- CCZZ-1E interconnection adaptor is supplied
- It is possible to extend the cable length with CCZ-A cable
- YC/VBS output to CCU-M7P/M5P



CCQ-AM cables (14-pin/14-pin)

CCQ-10AM : 10m (33 ft)
CCQ-25AM : 25m (82.5 ft)
CCQ-50AM : 50m (165 ft)
CCQ-100AM : 100m (330 ft)

- 14-pin (male) ↔ 14-pin (female)
- CA-327P ↔ CCU-M5P

CCQ-BRS cables (14-pin/14-pin)

CCQ-2BRS : 2m (6.4 ft)
CCQ-5BRS : 5m (16.4 ft)
CCQ-10BRS : 10m (33 ft)
CCQ-25BRS : 25m (82.5 ft) only for projector
CCQ-50BRS : 50m (165 ft) only for projector

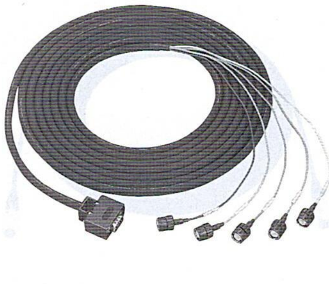
- 14-pin (male) ↔ 14-pin (female)
- CA-327P ↔ VO-8800P/CMA-8ACE, S-VHS VTR
- VPH-G70QM/G70QMG/G70VRM/D50QM, RVP-6010QM/ ↔ PC-1271M

CCQX-3 (14-pin/XLR 4-pin)

- 14-pin (male) ↔ XLR 4-pin (female), 3m (10 ft)
- For external DC input to DSR-300P/UVW-100BP, CA-537P/327P from CMA-8ACE/AC-550CE

CCXC-9DB (9-pin/5BNCs)

- 9-pin D-sub (male) ↔ BNCs (R/G/B/SYNC/VBS) (male)
- 5m (16.4 ft)
- For video output from DXC-950P/9100P

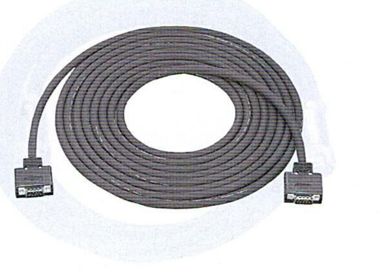


CCXC-9DBS (9-pin/5BNCs)

- 9-pin D-sub (male) ↔ BNCs (R/G/B/SYNC, male)
- 5m (16.4 ft)
- For video output from DXC-H10/950P/9100P

CCXC-9DD (9-pin/9-pin)

- 9-pin D-sub (male) ↔ 9-pin D-sub (male)
- 5m (16.4 ft)
- For video output from DXC-950P/9100P



CCZ-A cables (26-pin/26-pin)

CCZ-A2 : 2m (6.5 ft)
CCZ-A5 : 5m (16.5 ft)
CCZ-A10 : 10m (33 ft)
CCZ-A25 : 25m (82 ft)
CCZ-A50 : 50m (164 ft)
CCZ-A100 : 100m (330 ft)

- 26-pin (male) ↔ 26-pin (female)
- CA-537P ↔ CCU-M7P/M5P
- CA-537P, DSR-300P/UVW-100BP ↔ BVW-50P/BVV-5P/DNV-5P
- DXC-H10 ↔ CMA-H10

CCZQ-A cables (14-pin/26-pin)

CCZQ-A2 : 2m (6.6 ft)
CCZQ-A5 : 5m (16.5 ft)
CCZQ-A10 : 10m (33 ft)

- 14-pin (male) ↔ 26-pin (female)
- CA-537P, DSR-300P/UVW-100BP ↔ VO-8800P, S-VHS VTR
- CA-537P ↔ CMA-8ACE

RCC-A cables (15-pin/15-pin)

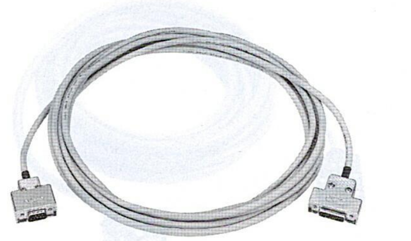
RCC-5A : 5m (16 ft)
RCC-11A : 10m (33 ft)

- 15-pin (male) ↔ 15-pin (female)
- BVE-600 ↔ MXP-290
- BVE-910 (with BKE-916A) ↔ MXP-290

RCC-5AA cable (9-pin/15-pin)

Audio mixer control cable

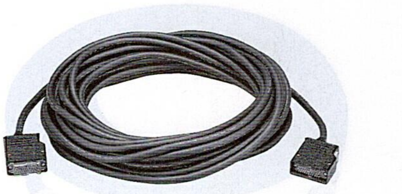
- 9-pin (male) ↔ 15-pin (female), 5m (16ft)
- PVE-500 ↔ MXP-290



RCC-15FT (33-pin/33-pin)

Remote control extension cable

- 33-pin (male) ↔ 33-pin (female), 15m (49.2 ft)
- RM-450CE/500/555/580 ↔ All Type-5/7/9 VTRs, EVO-9800P/9850P



RCC-5F (33-pin/33-pin)

Remote control cable

- 33-pin (male) ↔ 33-pin (female), 5m (16.4 ft)
- RM-450CE/500/555/580 ↔ All Type-5/7/9 VTRs, EVO-9800P/9850P

RCC-G cables (9-pin/9-pin)

RCC-5G : 5m (16 ft)
RCC-10G : 10m (33 ft)
RCC-30G : 30m (99 ft)

- 9-pin (male) ↔ 9-pin (male)
- PVW-series VTRs, UVW-1800P/1700GP/1600P, VO-9850/9800P, EVO-9850P/9800P, SVO-5800P/SVP-5600P, DSR-70P ↔ 9-pin equipped Sony machines

SIC-M cables (14-pin/14-pin)

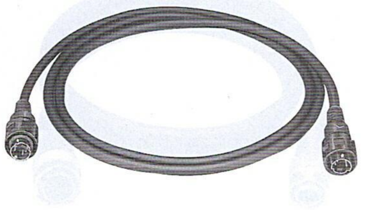
SIC-M1 : 1m (3.3 ft)
SIC-M5 : 5m (16.4 ft)
SIC-M15 : 15m (49 ft)
SIC-M25 : 25m (82 ft)
SIC-M50 : 50m (164 ft)

- 14-pin (male) ↔ 14-pin (female)
- VPH-G90E/G90M/G70QM/G70QMG/G70VRM/D50QM, RVP-6010QM ↔ PC-1271M

SYC cables (4-pin/4-pin)

SYC-2 : 2m (6.4 ft)
SYC-5 : 5m (16.4 ft)

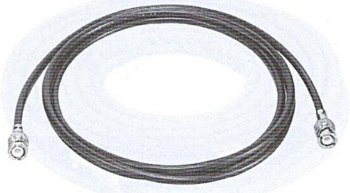
- Mini DIN 4-pin(male) ↔ Mini DIN 4-pin (female)
- PVW/UVW series VTRs
- SVO-5800P/9620/9500MDP, SVP-5600P/9020
- EVO-9850P/9800P/9700P/9650P/9500P
- SVT-S3050P



UGC cables (BNC/BNC)

UGC-1 : 1m (3.3 ft)
UGC-2 : 2m (6.4 ft)
UGC-5 : 5m (16.4 ft)
UGC-10 : 10m (33 ft)

- BNC (male) ↔ BNC (male), 3C-2V



VDC-5A (7-pin/7-pin)

Dubbing cable

- 7-pin (male) ↔ 7-pin (female), 5m (16.4 ft)
- VTRs with ↔ VTRs with
  7-pinDUB connector 7-pinDUB connector
  VCS-500
  DA-500
- DA-500 ↔ DA-500
- PVW series VTRs ↔ U-matic VTRs

VDC-C5 (12-pin/12-pin)

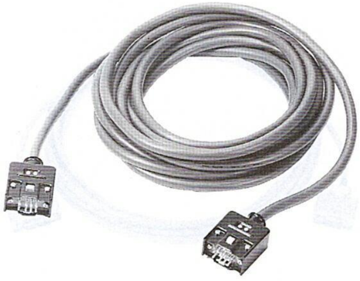
Dubbing cable

- 12-pin/12-pin, 5m (16 ft)
- PVW series VTRs
- UVW-1800P/1600P

VMC cables (8-pin/8-pin)

VMC-3P : 3m (10 ft)
VMC-5P : 5m (16.4 ft)
VMC-10P : 10m (33 ft)

- 8-pin (male) ↔ 8-pin (male)
- VTR ↔ Monitor
  TV tuner
- TV tuner ↔ projector



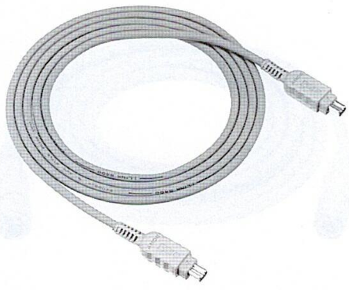
VMC-1MQ (14-pin/8-pin)

- 14-pin (male) ↔ 8-pin (male), 1.5m (5 ft)
- VO-8800P ↔ Monitor
  TV tuner

VMC i.LINK cables

(4-pin/4-pin)
VMC-IL4415 : 1.5 m(5 ft)
VMC-IL4435 : 3.5 m(12 ft)
(4-pin/6-pin)
VMC-IL4615 : 1.5 m(5 ft)
VMC-IL4635 : 3.5 m(12 ft)

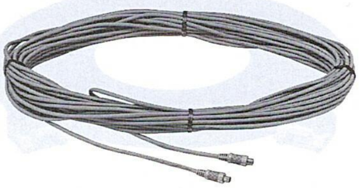
- DVCAM series



VK-110A/120A (4-pin/4-pin)

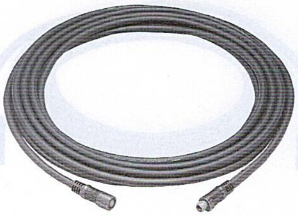
VK-110A : 10m (33 ft)
VK-120A : 20m (65.6 ft)

- 4-pin (male) ↔ 4-pin (male)
- SSC-534AM ↔ SSM-504AM/724AMR



VK-305 (4-pin/4-pin)

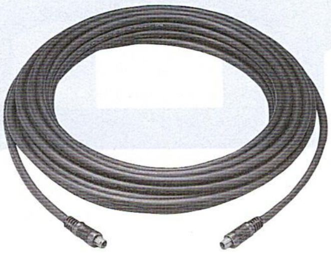
- 4-pin (male) ↔ 4-pin (female) , 5m (16.4 ft)
- Water-resistant extention cable
  SSC-534AM ↔ SSM-504AM/724AMR



VK-310A/320A (4-pin/4-pin)

VK-310A : 10m (33 ft)
VK-320A : 20m (65.6 ft)

- 4-pin (male) ↔ 4-pin (male)
- SSC-534AM ↔ SSM-504AM/724AMR



Cable connections

		Video camera				
		DXC-D30P/D30WSP/637P/ 327BP with CA-537P	DXC-D30P/D30WSP/637P/ 327BP with CA-327P	DXC-950P	DXC-107AP	DXC-H10
VTR	VO-8800P or S-VHS VTR	CCZQ-A	CCQ-BRS	---	---	---
Camera control unit	CCU-M7P	CCZ-A	---	---	---	---
	CCU-M5P	CCZ-A	CCQ-AM	CCTZ-3RGB/3YC+ CCZ-A or CCTQ-3RGB+ CCQ-AM	---	---
camera AC adaptor	CMA-8ACE	CCZQ-A/ CCQX-3	CCQ-BRS CCQX-3	---	---	---
	CMA-D7CE	---	---	---	CCMC-12P/UGC	---
	CMA-D2CE	---	---	CCDC/CCMC-12P	CCDC/CCMC-12P	---
	CMA-H10	---	---	---	---	CCZ-A

Audio connecting cords

RK-5XLRF

RK-5XLRF: XLR-3-11C type (female)—phono, 5m
RK-5XLRM: XLR-3-12C type (male)—phono, 5m

BCT MA series metal videocassette tapes

BCT-5MA/10MA/20MA/30MA (Small cassettes)
BCT-5MLA/10MLA/20MLA/30MLA/60MLA/90MLA (Large cassettes)

Model	Tape length m (feet)	Playing time (min)	Mass* g (lb.)
BCT-5MA	42 (138)	6	231 (0.47)
BCT-10MA	78 (256)	12	241 (0.49)
BCT-20MA	150 (492)	24	256 (0.52)
BCT-30MA	222 (728)	36	276 (0.56)
BCT-5MLA	58 (190)	9	625 (1.38)
BCT-10MLA	93 (305)	15	630 (1.39)
BCT-20MLA	172 (564)	29	650 (1.43)
BCT-30MLA	243 (797)	39	660 (1.46)
BCT-60MLA	457 (1,499)	75	730 (1.61)
BCT-90MLA	670 (2,198)	110	790 (1.74)

*With case

- For Betacam SP 2000 PRO VTRs PVW-2800P/2650P/2600P, PVV-3P and BVW series Betacam SP VTRs
- The highest possible picture can be reproduced.

SONY
BCT-5MA
BCT-10MA
BCT-20MA
BCT-60MLA
BCT-90MLA
ANTI-STATIC
BETACAM SP

UVWT series metal videocassette tapes

UVWT–10MA/20MA/30MA (Small cassettes)
UVWT–60MLA/90MLA (Large cassettes)

Model	Tape length m (feet)	Playing time (min)	Mass* g (lb.)
UVWT-10MA	78 (256)	12	241 (0.49)
UVWT-20MA	150 (492)	24	256 (0.52)
UVWT-30MA	222 (728)	36	276 (0.56)
UVWT-60MLA	457 (1,499)	75	730 (1.61)
UVWT-90MLA	670 (2,198)	110	790 (1.74)

*With case

- Metal particle tape for UVW series VTRs UVW-1800P/1700GP/1600P/1400AP/1200P

SONY
10
20
30
60
90
UVWT-10MA
UVWT-60MLA
Perfect Choice! for UVW VTR Series

PDV series
Digital videocassette tapes

PDVM-12ME/22ME/32ME/40ME (Mini size)
PDV-34ME/64ME/94ME/124ME/184ME (Standard size)

Model	Tape length m (feet)	Recording/Playback time (min)	Mass* g (lb.)
PDVM-12ME	24 (79)	12	61 (0.134)
PDVM-22ME	41 (135)	22	62 (0.137)
PDVM-32ME	58 (190)	32	63 (0.139)
PDVM-40ME	71 (233)	40	64 (0.141)
PDV-34ME	61 (200)	34	124 (0.27)
PDV-64ME	112 (367)	64	128 (0.28)
PDV-94ME	163 (535)	94	132 (0.29)
PDV-124ME	214 (702)	124	135 (0.30)
PDV-184ME	315(1,033)	184	142 (0.31)

*With case

SONY
DVCAM
184
40

•For DSR-85P, DSR-80P, DSR-60P, DSR-30P, DSR-200P, DSR-1P, and DSR-PD1P •Advanced Metal Evaporated cassette tapes •Enhanced protection with DLC (Diamond-Like Carbon) coating •Built-in16kbit IC memory

PDV series
Digital videocassette tapes
(Non IC type)

PDVM-32N/40N (Mini size)
PDV-64N/124N/184N (Standard size)

Model	Tape length m (feet)	Recording/Playback time (min)	Mass* g (lb.)
PDVM-32N	58 (190)	32	63 (0.139)
PDVM-40N	71 (233)	40	64 (0.141)
PDV-64N	112 (367)	64	128 (0.282)
PDV-124N	214 (702)	124	135 (0.298)
PDV-184N	315(1,033)	184	142 (0.313)

*With case

SONY
40
32
184
124
64
DVCAM

•For DSR-85P, DSR-80P, DSR-60P, DSR-30P, DSR-200P, DSR-1P, and DSR-PD1P •Advanced Metal Evaporated cassette tapes •Enhancing protection with a DLC (Diamond Like Carbon) coating •Non IC memory

6-3 U-matic VTR videocassette tapes

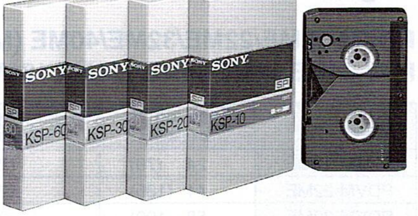
KSP series

Videocassette tapes

- For the SP U-matic videocassette tape recorder VO-9850P/9800P/9600P
- Can be used with conventional U-matic VTRs
- SP mode recording can be activated via the detection holes on the back of the cassette

Model	Playing time (min)	Tape length m (ft)	Mass* g (lb)
KSP-60	60	358 (1,174)	855 (1.88)
KSP-30	30	186 (610)	745 (1.64)
KSP-20	20	129 (423)	695 (1.53)
KSP-10	10	72 (236)	645 (1.42)
KSP-5	5	43 (141)	630 (1.39)

*With case



KSP-S series

Videocassette tapes

- For the SP U-matic videocassette tape recorder VO-9850P/9800P/9600P
- Can be used with the portable U-matic recorder VO-8800P, and the conventional U-matic VTRs
- SP mode recording can be activated via the detection holes on the back of the cassette

Model	Playing time (min)	Tape length m (ft)	Mass* g (lb)
KSP-S20	20	129 (423)	525 (1.16)
KSP-S10	10	72 (236)	475 (1.05)

*With case

SONY
KSP-S20

KCA BRS series

Videocassette tapes

- Regular size U-matic videocassette that offers improved video and audio characteristics (with hard case)

Model	Playing time (min)	Tape length m (ft)	Mass* g (lb)
KCA-60BRS	60	358 (1,174)	855 (1.88)
KCA-30BRS	30	186 (610)	745 (1.64)
KCA-20BRS	20	129 (423)	695 (1.53)
KCA-10BRS	10	72 (236)	645 (1.42)
KCA-5BRS	5	43 (141)	630 (1.39)

*With case

SONY
BRS
KCA-20BRS

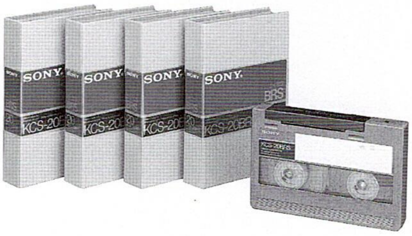
KCS BRS series

Videocassette tapes

- For Sony U-matic portable videocassette tape recorder VO-8800P series for improved video and audio characteristics
- Can be used with regular U-matic VTRs

Model	Playing time (min)	Tape length m (ft)	Mass* g (lb)
KCS-20BRS	20	192 (423)	525 (1.16)
KCS-10BRS	10	72 (236)	475 (1.05)

*With case



KCS-5CL

Head cleaning videocassette tape

- For all types of U-matic videocassette tape recorder

SONY
cleaning
KCS-1CL

OTHER VIDEO EQUIPMENT AND ACCESSORIES

Hi8 HMEAD Series 8 mm videocassette

- Metal evaporated tape for Hi8 recording
- DLC(Diamond Like Carbon) protective coating for higher durability
- Ideal for both original acquisition and for editing and repeated playback
- Excellent picture quality

Model	Playing time (min)	Tape length m (ft)	Mass* g (lb)
E5-30HMEAD	30	39 (128)	78 (0.172)
E5-60HMEAD	60	75 (246)	82 (0.181)
E5-90HMEAD	90	111.5 (366)	86 (0.189)

*With case

SONY
Hi8
Hi8 DLC Editor
E5-30
E5-60
E5-90
Hi8 Editor
DLC

Hi8 HMEX series 8 mm videocassette

- Metal evaporated Hi8 HMEAD seires lated Tape for Hi8 recording
- For maximizing Hi8 performance
- Hi8 mode recording can be activated via the detection holes on the back of the cassette
- Rugged, pro-type album case

Model	Playing time (min)	Tape length m (ft)	Mass* g (lb)
E5-30HMEX	30	39 (128)	78 (0.172)
E5-60HMEX	60	75 (246)	82 (0.181)
E5-90HMEX	90	111.5 (366)	86 (0.189)

*With case

SONY
Hi8
PRO ME
FOR PROFESSIONAL USE
E5-60
60

Hi8 HMPX series 8 mm videocassette

- Metal particle tape for Hi8 recording
- Hi8 mode recording can be activated via the detection holes on the back of the cassette
- Rugged, pro-type album case

Model	Playing time (min)	Tape length m (ft)	Mass* g (lb)
P5-30HMPX	30	39 (128)	80 (0.175)
P5-60HMPX	60	75 (246)	85 (0.187)
P5-90HMPX	90	111.5 (366)	90 (0.198)

*With case

SONY
Hi8
PRO MP
FOR PROFESSIONAL USE
P5-60
60

MP series 8 mm videocassette

- For all 8 mm videocassette recorder
- For standard 8 mm recording

Model	Playing time (min)
P5-30MP	30
P5-60MP	60
P5-90MP	90
P5-120MP	120

SONY
Video 8
8
MP
High Quality & Durability
PAL 90
Metal Particle Tape
Sony 8mm Video Cassette
P5-90MP
Hi-packing

MQSE series S-VHS Videocassette

•Metal particle tape for S-VHS recording •Anti-static lid to protect the tape from dirt and dust particles for low dropouts •S-VHS mode recording can be activated via the detection holes on the back of the cassette • Rugged, pro-type album case

Model name	Playing time* (min)	Tape length m (ft)	Mass** g (lb.)
MQSE-30	30	45 (148)	340 (0.75)
MQSE-60	60	88 (289)	350 (0.77)
MQSE-120	120	173 (568)	370 (0.81)
MQSE-180	180	258 (847)	390 (0.86)

* Playing time = SP mode
**With case

SONY
SE-120
SONY
SE-60
SONY
SE-30

7. Memory Stick

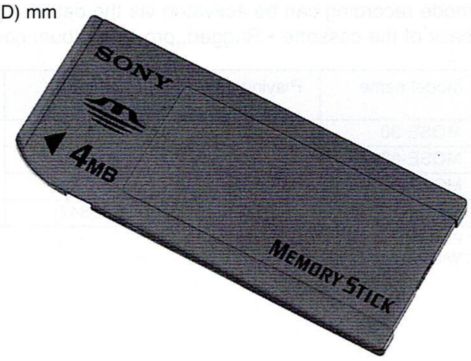
MSA-4A/8A

Memory Stick

•IC memeory media which is designed for the coming generation after tape and disk. •Record and store still images and other data •Transfer the data to other products easily without cables •Compact and removable •Need no mechanism •Quick access •Simple 10-pin connection

Specifications

IC memory type:	Flash memory
Storage capacity:	4MB/8MB
Connector type:	10-pin connector
Clock speed:	Max. 20 MB/s
Write speed:	Max. 1.50 MB/s
Read out speed:	Max. 2.45 MB/s
Power source:	2.7 V to 3.6 V
Power consumption (average):	Approx. 45 mA
Power consumption (standby):	Approx. 130 μA
Dimensions:	Approx. 21.5(W) × 50(H) × 2.8(D) mm (7/8 × 2 × 1/8 inches)
Mass:	Approx. 4g



Memo

Memo

Memo

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SONY

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Tel.: 49-(0) 221 5966-0
Fax.: 49-(0) 221 5966-349

Distributed by

MK7282V1KYP98DEC

Printed in Japan
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